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FY 11 PROJECT ACCOMPLISHMENTS

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FY 11 PROJECT ACCOMPLISHMENTS

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From the Chief

Fiscal Year (FY) 2011 has been a busy and challenging year for the Branch of Architecture and Engineering (AE). The AE Branch has continued to make great strides in:

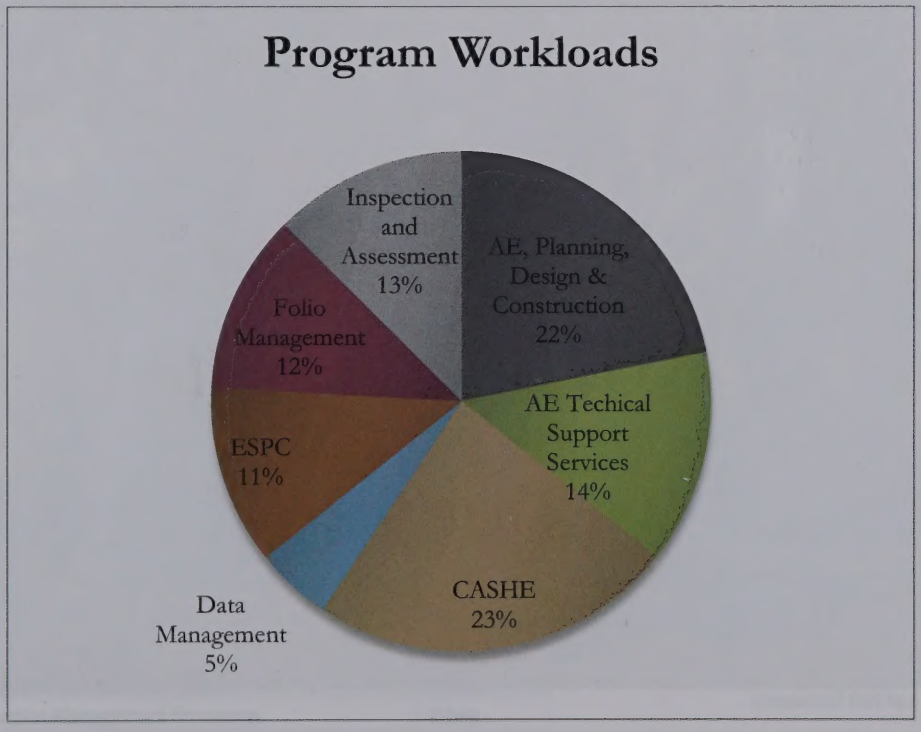
1. Transitioning into a new organizational alignment under the Division of Business Services at the National Operations center (NOC)
2. Improving operational support services
3. Completing projects/deliverables as promised to customers

The branch's primary goal this year was to improve customer service. My intent was to create increased ownership of the project work activities by reorganizing the NOC AE Branch into seven cohesive workgroups (Teams). I delegated responsibilities to workgroups with the greatest subject matter knowledge, held the staff more accountable, and emphasized customer support.

The AE Branch is now organized into the following workgroups:

Folio Management
AE Planning, Design & Construction
AE Technical Support
Inspection and Assessment
Data Management
ESPC (Energy Savings Performance Contract)
CASHE (Compliance Assessment – Safety, Health, and the Environment)

This portfolio of project accomplishments highlights just some of the projects and services that AE's multidisciplinary staff of professionals completed this past year. Collectively, the AE Branch performed work on more than 224 projects/deliverables, completing 132 projects/deliverables. Other projects/deliverables are in progress and will be completed in FY 2012. This workload distribution is shown in the chart below.



We urge our customers to take advantage of the expertise at the NOC's AE Branch:

• Architecture	Ed Giagni
• Landscape Architecture	Jack Reynolds
• Civil Engineering	Dan Akin
• Structural Engineering	Barry Welton
• Mechanical Engineering	Andy Roberts
• Electrical Engineering	Chuck Svoboda
• A&E Contract Management	Jack Emrick
• Fire Facilities	Jack Emrick
• Construction Management	Ken White
• Project Management	Ed Giagni
• Information Technology FAMS	Cy Hill
• Technical Writing	Mary Anne Nelson
• Alternative Energy Design	Chuck Svoboda
• Bridges	Keith Christiansen
• Dams	Paul Peterson
• Roads	Paul Peterson
• CASHE	Ken Morin
• Environmental Management	Ken Morin

Please enjoy a selection of our project highlights.

Sincerely,

Robert Hart

Robert Hart, PE
Branch Chief, Architecture & Engineering

(Not pictured: Mary Anne Nelson and Nell Dickerson)

Folio Management Projects

AE Folio Management Mission

Folio Management administers the technical support activities necessary to obtain services for planning, design, and construction of the BLM's projects.

Folio Management Team

OC-670: ARCHITECTURE AND ENGINEERING BRANCH

Robert Hart	**Branch Chief**
Robert Trujillo	Administrative Assistant

OC-671: PLANNING, DESIGN & CONSTRUCTION SECTION

Jack Emrick	**PDC Program Coordinator**
Nell Dickerson	COR National IDIQ
Ed Giagni	Folio Coordinator
Chanh Tran	Project Scheduling
Robert Welton	Structural Engineering
Ken White	Construction Management

OC-672: ENGINEERING PROGRAM SUPPORT SECTION

Cy Hill	FAMS Program Analyst
Mary Anne Nelson	COR National IDIQ
Paul Peterson	Civil Engineering

Folio Management Projects

Project Title	Project Lead
AE PM 2011 AE Project Portfolio	Dickerson
SOP Chapter 2 - Project Management Processes	Dickerson
SOP Chapter 7 - National AE Contract Management Processes	Dickerson
AE CM FY10 National AE Contract Management	Dickerson
AE CM FY10 National AE Contract Management	Dickerson
AE CM FY10 National AE Contract Management	Dickerson
AE CM FY10 National AE Contract Management	Dickerson
DOI Service First Campus	Giagni
AE PM Quarterly Workplan Updates (QA/QC)	Giagni
AE PM Quarterly Workplan Budget Reports	Giagni
AE PM 2011 Annual DBS Report	Giagni
Space Leasing Standards	Giagni
DM FY10 Five Year DM/CI Support	Giagni
DM FY10 Five Year DM/CI Support	Giagni
SOP Chapter 8 - Position Management Processes	Hart
IDIQ FY10 8A National Design Build Support Contract	Hart
IDIQ FY11 National Planning and Design (LEED) IDIQ Contract	Hart
AE PM Upload Work Plan into SharePoint	Hill
SOP Chapter 4 - AE Standards	Nelson
AE PM Develop 2011 Workplan	Peterson
SOP Chapter 5 - National Program Management	Peterson
IDIQ FY10 Dams IDIQ Contract	Peterson
SharePoint Maintenance and Development	Peterson
SOP Chapter 1 - Administrative Processes	Trujillo
SOP Chapter 3 - Planning and Design Processes	Welton
SOP Chapter 6 - Construction Management Processes	White

Folio Management

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: AE Branch SharePoint Site Development

Customer: AE Branch, NOC

Project Number: N/A

Objective

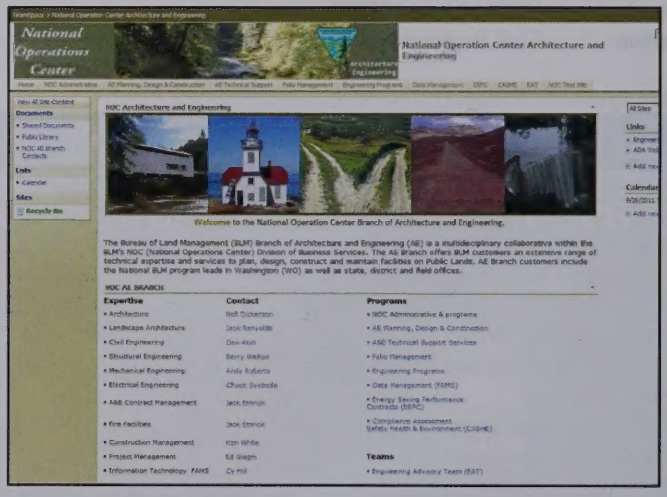
Give the NOC's AE Branch SharePoint site a consistent look, one that is intuitive and easy to navigate.

Outcome

AE staff redesigned the HOME page and established web parts that repeat on each program subsite/tab; set up a graphic language to give consistency across the site; and designed the subsite for the AE Planning, Design & Construction program. The branch would like to develop the site further to use as a showcase for the NOC Headquarters office.

Background

FY 2011 is the second year the NOC's AE Branch has had a SharePoint site. It is divided into subsites to correspond with each program. Since the site is continually evolving from the contributions of the program leads, the intent was to establish a brand identity across all of the subsites.



Benefits

The redesign ties the SharePoint site into AE's brand identity and establishes a method for AE's customers to access information easily.

FY 11

Folio Management

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: AE Branch Website Portal

Customer: AE Branch, NOC

Project Number: N/A

Objective

Bridge the old and the new by updating the AE Branch intranet website as a portal to the new SharePoint site.

Outcome

Customers can find the AE Branch more easily on the BLM intranet. They have the option of either continuing on to the established MasterSpec site or launching the AE Branch SharePoint site.

National
Operations
Center
Division of Business Services
Branch of Architecture and Engineering
Welcome to the NOC's AE Branch
The Bureau of Land Management (BLM) Branch of Architecture and Engineering (AE) is a multidisciplinary collaborative within the BLM's NOC (National Operations Center) Division of Business Services. The AE Branch offers BLM customers an extensive range of technical expertise and services to plan, design, construct and maintain facilities on Public Lands. AE Branch customers include the National BLM program leads in Washington (WO) as well as state, district and field offices.
Click image to go to our Internal Sharepoint site:
Contact us at (303) 236-1174
Expertise
• Architecture
• Landscape Architecture
• Civil Engineering
• Structural Engineering
• Mechanical Engineering
• Electrical Engineering
• A&E Contract Management
• On-site Construction Inspection
• Construction Management
• Project Management
• Information Technology
• Technical Writing
• Alternative Energy Design & Implementation
Programs
• A&E Planning, Design & Construction
• A&E Technical Support Services
• Folio Management
• Engineering Programs
• Data Management (FAMS)
• Energy Saving Performance Contracts (ESPC)
• Compliance Assessment Safety Health & Environment (CASHE)
Sample Projects

Background

For years, the AE Branch's intranet site was unmanaged and out of date. The links to and from the site were either broken or illogical in their paths.

Benefits

The updated site expands the AE Branch's brand awareness to the intranet with an updated look and improved ease of use.

Folio Management

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Standard Operating Procedures, Chapter 7 - National AE Contract Management Processes

Customer: AE Branch, NOC

Project Number: FM-OC-11-02

Objective

Rewrite and update the AE Branch's standard operating procedures (SOPs) chapter on AE contract management processes.

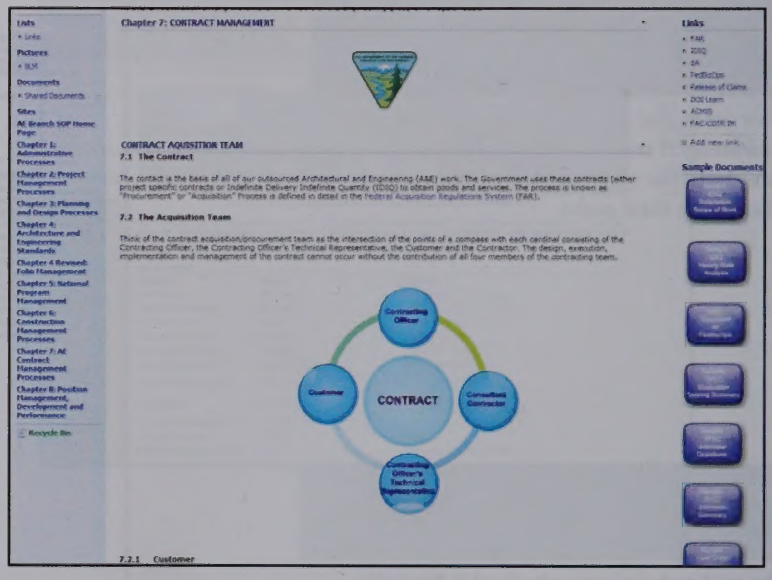
Outcome

Not only were the processes rewritten, but the document was also posted on a SharePoint site as a collection of interactive web parts. Now the document is dynamic and can be easily updated. Links to shared documents and other sites are live.

This interactive chapter will serve as a template for all other SOP chapters to be posted on the SharePoint site.

Background

The SOPs required updating.



Benefits

New employees have a guide to do their jobs.

FY 11

Folio Management

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Architecture & Engineering IDIQ Contracts

Customer: AE Branch, NOC

Project Number: FM-OC-11-03

Objective

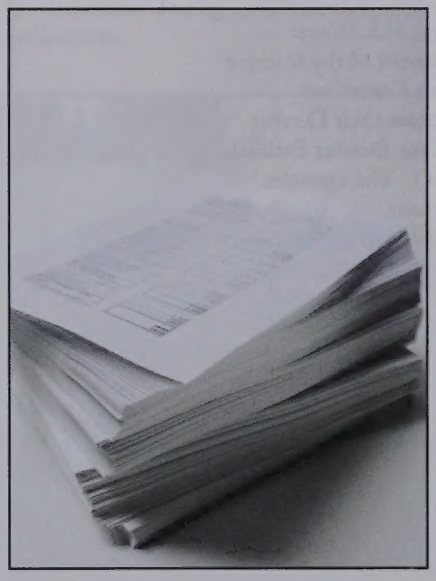
Manage the award, contracting, and procurement of AE services to provide flexibility in resources and to supplement BLM staff in accomplishing their mission and goals.

Outcome

The AE Branch managed the award of task orders totaling more than $2 million in contracting for AE services to supplement BLM staff in accomplishing their planning, design, construction, and condition assessment workload.

Background

In order to augment BLM staff and add more technical AE capabilities to the in-house expertise, the AE Branch manages several national AE contracts and interagency agreements for the Bureau, and serves as the Contracting Officer's Representative (COR) for AE task orders.



Benefits

The BLM received AE support nationwide.

Folio Management

Project Lead: Ed Giagni, RA

Title: DOI Service First Campus

Customer: Deb Rawhouser, NOC

Project Number: FM-OC-10-13

Objective

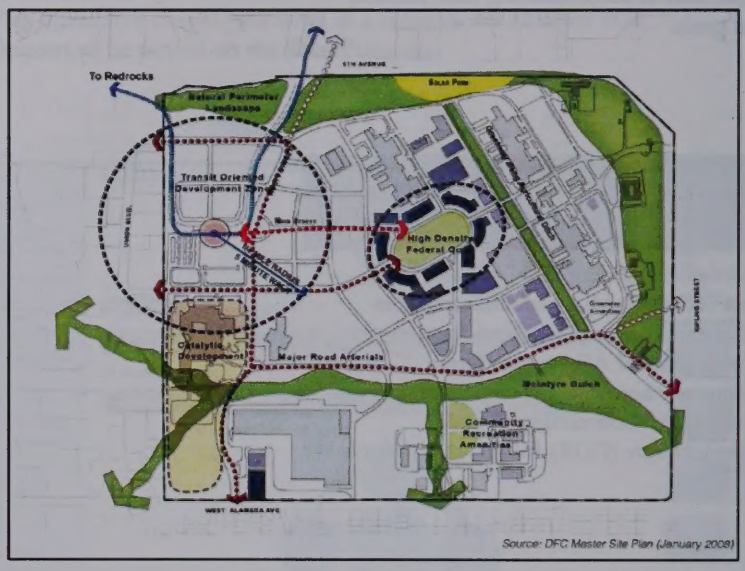
Assist customers by providing NOC representation during the programming phase of a new multi-agency facility, and meet or exceed customer expectations.

Background

The General Services Administration (GSA), the Bureau of Land Management, Fish and Wildlife Service, U.S. Forest Service, and the Department of the Interior (DOI) National Business Center are working closely to collocate their Denver-based organizations on the Denver Federal Center in Lakewood, CO. The agencies envision an energy-efficient, environmentally sustainable, state-of-the-art office complex with a zero environmental footprint. The complex would accommodate approximately 2,500 federal employees and contractors, and would include approximately 610,000 rentable square feet (rsf) of Class A office space, and 20,000 rsf of warehouse space.

Outcome

FY 2011 saw the completion of a comprehensive programming document that GSA will use when submitting a request for congressional funding/appropriations.



Benefits

The new complex promises to:

- Enhance customer service and public access (Service First Initiative.
- Provide opportunities for cross-bureau collaboration and knowledge sharing, while maintaining bureau identities.
- Increase efficiency through improved space use and sharing of common resources.
- Improve the work and built environment with a more sustainable and healthy approach, consistent with agency conservation missions.
- Save substantial federal funding through increased efficiencies and sharing of facilities.
- Provide a permanent office for the agencies, avoiding four, higher-cost agency leases in the future.

FY 11

Folio Management

Project Lead: Ed Giagni, RA

Title: Five-Year Deferred Management and Capital Improvement Plan

Customer: Marjorie Chiles, WO

Project Number: FM-WO-11-01

Objective

Assist customers in coordinating, facilitating, and recording the annual Project Data Sheet (PDS) review meeting, and then provide QA/QC review of all PDSs. Update the Five-Year Plan handbook with new requirements and/or procedures. Meet or exceed customer expectations.

Background

In support of the Deferred Maintenance (DM) and Capital Improvement (CI) funded projects, the BLM requires the annual development, updating, and submission of a Five-Year DM/CI plan to the DOI.

Benefits

The Five-Year Plan promises to:

- Enhance communication between states to ensure consistency in the description, categorization, and ranking of projects to be considered for funding.
- Provide opportunities for cross-state collaboration and knowledge sharing, while maintaining state identities and interests.
- Increase efficiency through improved process and sharing of common practices and project types.
- Improve the work and built environment with a more sustainable approach of agreeing how limited dollars are spent to meet the Bureau's mission.
- Provide a check and balance between all stakeholders to assure the proper allocation of limited project funds to insure the health, safety, and well-being of the public and BLM employees.
- Provide cross-training and mentoring opportunities for the sustainment and viability of a critical program to meet BLM's mission.

Outcome

FY 2011 saw the successful completion of another annual PDS review meeting and the review and submission of more than 41 CI, 114 DM, and 33 O&C projects to the WO for inclusion in the BLM's Five-Year Plan to the DOI. In addition, a major revision to the 9101 handbook was completed, thanks to the hard work and dedication of team members (Dave Campbell, Curt Fortenberry, Elaine Lopez, Mary Anne Nelson, Tanya Pardy, and Tom Wilczek.) Cy Hill and Paul Peterson developed a SharePoint site that provided an invaluable resource for the posting, tracking, and organizing of projects, one that provides easy access and the document sharing necessary to complete the program mission and objectives.

Hancock cabin replacement, Henry Mountains, Utah

Folio Management

Project Lead: Paul Peterson, PE

Title: Engineering IDIQ Contract

Customer: AE Branch, NOC

Project Number: FM-OC-11-04

Objective

Manage the award and contracting of engineering services to provide flexibility in resources and to supplement BLM staff in accomplishing their mission and goals.

Background

In order to augment BLM staff and add more technical AE capabilities to the in-house expertise, the AE Branch manages several national AE contracts and interagency agreements for the Bureau and serves as the COR for AE task orders.

Benefits

The BLM received contracted engineering support nationwide.

Outcome

- Staff performed COR responsibilities in the awarding and management of task orders greater than $3.9M to the following firms:
  - EDAW - $68K
  - YEH and Assoc. - $153K
  - Jacobs/C::B - $3.7M
- Owing to the expiration of these national IDIQ contracts in FY 2011, the NOC has taken necessary actions to restock its contract vehicles
- In FY 2011, the NOC solicited interest and conducted Technical Proposal Evaluation Committees for replacement of the expired national IDIQ contracts
  - Evaluations and interviews were conducted for Planning, Design, and Construction Services contractors, which support OC-671 activities
    - Two firms were selected, and negotiations are under way
    - Contract award is anticipated for early 2012
  - Evaluations were conducted for Engineering Program Support Services contractors, which support OC-672 activities
    - Firms are still being evaluated
    - Interviews and contract award are anticipated in mid to late 2012

Planning, Design & Construction Projects

Planning, Design & Construction Mission

This AE program supports the design and construction of the BLM's facilities and infrastructure.

Planning, Design & Construction Team

OC-670: ARCHITECTURE AND ENGINEERING BRANCH

Ken Morin	Environmental Management

OC-671: PLANNING, DESIGN & CONSTRUCTION SECTION

Jack Emrick	**PDC Program Coordinator**
Dan Akin	Civil Engineering Design
Nell Dickerson	Architectural Design
Ed Giagni	Folio Coordinator
Jack Reynolds	Landscape Architectural Design
Chuck Svoboda	Electrical Engineering Design
Chanh Tran	Mechanical Engineering Design
Barry Welton	Structural Engineering Design
Ken White	Construction Management

OC-672: ENGINEERING PROGRAM SUPPORT SECTION

Keith Christiansen	Bridge Design
Mary Anne Nelson	Road/Site Design
Paul Peterson	Civil Engineering
Andy Roberts	HVAC/Energy Saving Design
Dan Staton	Dams and Roads Data

Planning, Design & Construction Projects

Project Title	Project Lead
Scenic Loop Drive Paving	Akin
Scenic Loop Drive Paving	Akin
2010 Desert Tortoise Waterline Replacement	Akin
Desilt Pond Improvements Ph I - Design	Akin
Red Rocks Visitor Center - Issues Investigation	Akin
NIFC Master Plan CE/EA	Akin
NIFC Lift Station	Akin
Jupiter Inlet Shoreline Stabilization ARRA	Dickerson
RRCA Bike Trail Environmental Assessment	Dickerson
Billings and Malta Space Planning (MT042)	Dickerson
Historic Empire Ranch House Preservation - Phase II	Dickerson
Vernal Warehouse Renovation / Trailer Planning Building	Dickerson
NOC 5-year Facilities Improvement Plan	Dickerson
Ft. Craig Stabilization	Dickerson
Susanville Field Office Remodel	Dickerson
Hidden Valley Fire Facilities Cons. Admin.	Emrick
Craig Fire Facilities construction via MATOC	Emrick/White
Ruby Mountain Fire Facilities Construction	Emrick/White
Ruby Mountain Hotshot Construction ARRA via MATOC	Emrick/White
Plymouth Interagency Fire Facilities via MATOC	Emrick
Lamonta Fire Operations Building CD ARRA	Emrick
Fort Howes Fire Station (Pre-Design)	Emrick
Walking Box Ranch - Research Station Rehab.	Giagni
Walking Box Ranch - Research Station Rehab.	Giagni

Project Title	Project Lead
Walking Box Ranch - Research Station Rehab.	Giagni
Kanab FO New Office Building Design ARRA	Giagni
Drinking Water Handbook	Morin
Red Rock Canyon - Education Center	Peterson
Ely Seed Warehouse	Peterson
Marys River Bridge	Peterson
Red Rock Feasibility Study	Peterson
Nevada Solar Powered Facilities	Peterson
RRCA Bike Trail Construction Documents	Reynolds
Big Water Parking Access Improvements ARRA	Reynolds
Red Rock Campground/Fire Station	Reynolds
California Trails Amphitheatre	Reynolds
Idaho Falls District Lorenzo Boat ramp	Reynolds
California Trails GSHP Repair	Roberts
Anasazi Heritage Center, Upgrade Fire	Roberts
Marys River Bridge	Staton
Escalante Visitor Center - Replace Ductwork	Tran
Meadowood Stables & Arena	Welton
Worland FO Phase II - BLDG Upgrades	Welton
Worland FO Phase II - BLDG Upgrades	Welton
Worland FO Phase IA Remodel Bathroom	Welton
National BLM White River F.O. - Building & Site	Welton
Farmington Construction Administration	White

Planning, Design & Construction

Project Lead: Dan Akin, PE
LEED Green Associate

Title: NIFC Wastewater Facilities Plan

Customer: National Interagency Fire Center

Project Number: AE-FA-11-01

Objective

Prepare a Wastewater Facilities Plan, per regulations of the Idaho Division of Environmental Quality (IDEQ) and the U.S. Environmental Protection Agency.

Outcome

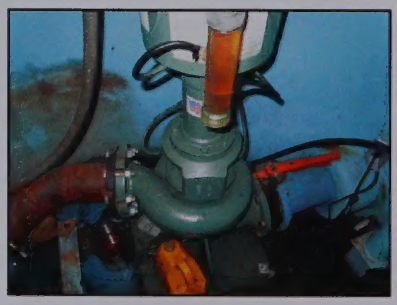
The Wastewater Facilities Plan was completed in-house, saving significant funds, and was completed in a timely fashion, in support of funding requests. The plan has been submitted to the IDEQ for approval.

Background

A facilities plan must be completed and approved before construction documents are submitted for any improvements to the wastewater collection system. The goal is to obtain a construction permit through the National Pollution Discharge Elimination System, per the Clean Water Act as amended.

Benefits

The study revealed the magnitude of extraneous water entering the wastewater system (probably storm water). This finding will support a targeted search for these sources, producing both short-term and long-term benefits and savings. The plan recommends and provides a justification for eliminating the existing pumping station and replacing it with a gravity sewer system, which would save about $5,000 per year in operating and maintenance expenses. The approximate cost of doing so, together with the periodic replacement of the equipment, would be $20,000 every 15 years.



FY 11

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Historic Bighorn Gas Station Restoration

Customer: Terresa Reed, AZSO

Project Number: AE-AZ-10-02

Objective

Support the construction project to stabilize the ranch site and one of the last 1920s gas stations.

Outcome

Construction for this ARRA project was completed in FY 2011 to stabilize the building and to repair and reconstruct elements of the structure, including adobe, stone, masonry, and other building components. Construction costs were $247,800.

Background

The Bighorn Station is a familiar sight to those who travel Interstate Highway 8 between Casa Grande and Gila Bend, Arizona, and is located within the Sonoran Desert National Monument. The property was abandoned when the interstate was completed, and it continually declined owing to vandalism and weather.

Before

Benefits

This site provides interpretive benefit, showing the development and interdependence of ranching, commerce, and transportation in Arizona from the late 1920s through the late 1950s, when the property was last operated. The restoration provides the regional community with long-term preservation of the historic resources at this iconic site.

This project was funded by the American Recovery and Reinvestment Act (ARRA) to provide economic stimulus funding to create and maintain jobs, stimulate the economy, encourage infrastructure investment, and enhance the BLM's national system of public lands.

After

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Historic Boquillas Ranch Storage Building

Customer: Terresa Reed, AZSO

Project Number: AE-AZ-10-03

Objective

Support the construction project of a new equipment storage building in a style compatible with the existing barn on a historic ranch.

Background

The historic Boquillas Ranch is located inside the San Pedro Riparian National Conservation Area, southeast of Sierra Vista, Arizona. The ranch is managed by the BLM's Tucson Field Office as an administrative site and, seasonally, as a Wild Land Fire Station. There was an urgent need to store equipment and protect it from theft.

Benefits

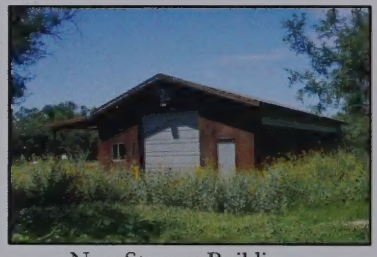
This project addressed security, health, and safety compliance for the benefit of fire personnel, BLM employees, and other potential users. This new construction provided the regional community with long-term preservation of the historic resources at this iconic site.

This project was funded by ARRA to provide economic stimulus funding to create and maintain jobs, stimulate the economy, encourage infrastructure investment, and enhance the BLM's national system of public lands.

Outcome

Construction for this ARRA project was completed in FY 2011 to build a new, secure storage building to match an existing barn. Construction costs were $352,317.

Existing Barn



New Storage Building

Barn and New Storage Building in Context

FY 11

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Historic Empire Ranch/ Main House Stabilization

Customer: Terresa Reed, AZSO

Project Number: AE-AZ-11-01

Objective

Produce the design/build bid package to stabilize the Empire Ranch Main House.

Background

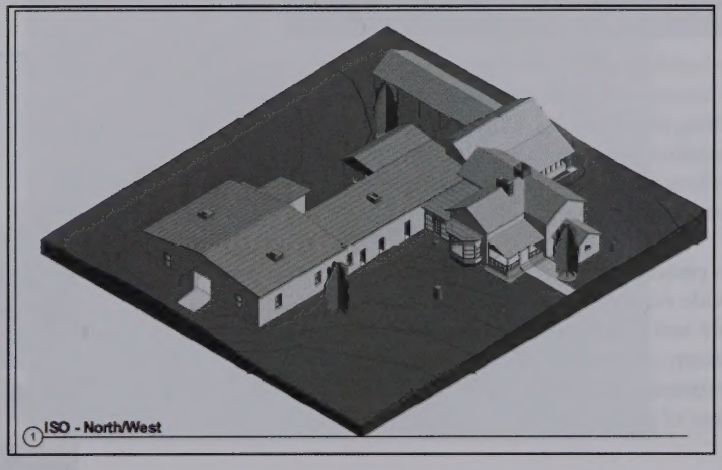
The Empire Ranch Main House (also known as the Vail House) is an 8,000 square foot (SF), 22-room adobe and wood frame building dating to 1870 and is listed in the National Register of Historic Places.

Benefits

The building has been prepared for use as an interpretive center, where the general public can learn about 19th century ranch life. The site hosts a variety of events, including educational camp activities for young people (Legacy Day and Hands on the Land events), volunteer opportunities, and a Fall Roundup and Open House.

Outcome

AE staff produced a set of drawings, outline specifications, and an estimate to detail the complex stabilization of the fragile adobe structure.



Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Jupiter Inlet Lighthouse and Keeper's Workshop Restoration

Customer: Faye Winters, ESO

Project Number: AE-ES-10-02

Objective

Restore a historic building for an adaptive reuse as a small, interpretive museum. Uncover, protect, and exhibit a 5,000-year-old well in the floor of the building.

Background

The building housed the tools, workbench, and aboriginal water-well/pump to support the nearby 1860s lighthouse. Restoration had to be performed within an active archaeological site.

Benefits

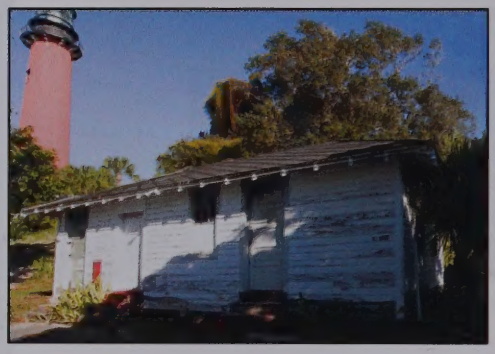
The building will be used as a living exhibit and interpretive center to demonstrate the working life of the lighthouse keeper. The restoration provides the regional community with long-term preservation of the historic resources at this iconic site.

This project was funded by ARRA to provide economic stimulus funding to create and maintain jobs, stimulate the economy, encourage infrastructure investment, and enhance the BLM's national system of public lands.

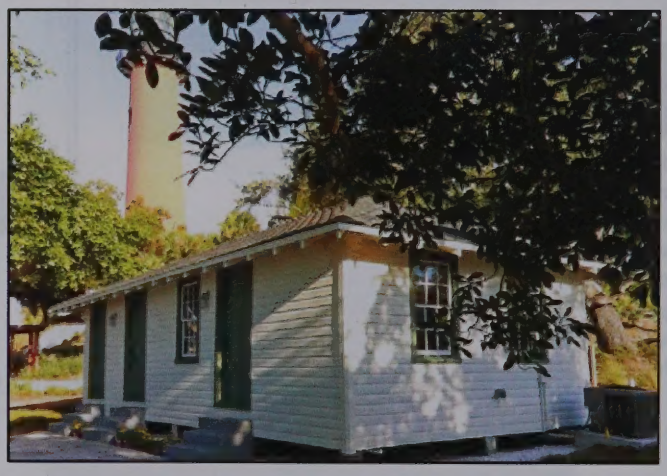
Existing Well

Outcome

Construction for this ARRA project was completed in FY 2011. Construction costs were $323,866.



Before



After

FY 11

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Jupiter Inlet Lighthouse Outstanding Natural Area, Trail and Overlook

Customer: Faye Winters, ESO

Project Number: AE-ES-10-02

Objective

Construct a parking area, trailhead, trail and destination wetland overlook for an 80-acre site within the village of Tequesta in northern Palm Beach County, Florida.

Background

This project is within the Jupiter Inlet Lighthouse Outstanding Natural Area (ONA), one of three such federally designated sites in the country, and the only one east of the Mississippi River. The site provides habitat for 25 special status species, including 4 that are federally listed.

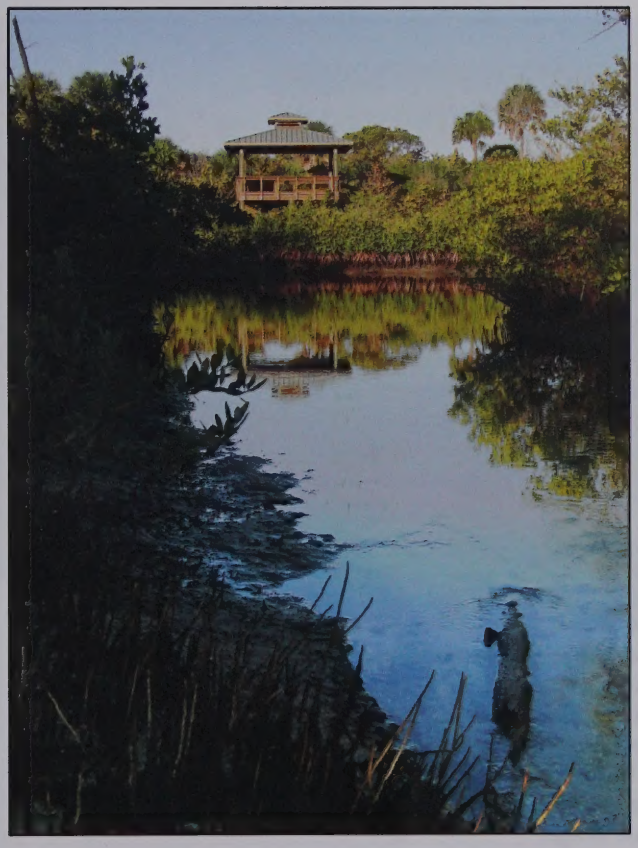
Benefits

This new construction provided public access facilities. The parking area, kiosk, ADA accessible trail, boardwalk, and overlook were designed and constructed in a manner to protect natural resources while allowing for visitors to experience a unique natural environment within an urban setting.

This project was funded by ARRA to provide economic stimulus funding to create and maintain jobs, stimulate the economy, encourage infrastructure investment, and enhance the BLM's national system of public lands.

Outcome

Construction for this ARRA project was completed in FY 2011. Construction costs were $556,364.



Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Jupiter Inlet Lighthouse Outstanding Natural Area, Trail and Overlook

Customer: Faye Winters, ESO

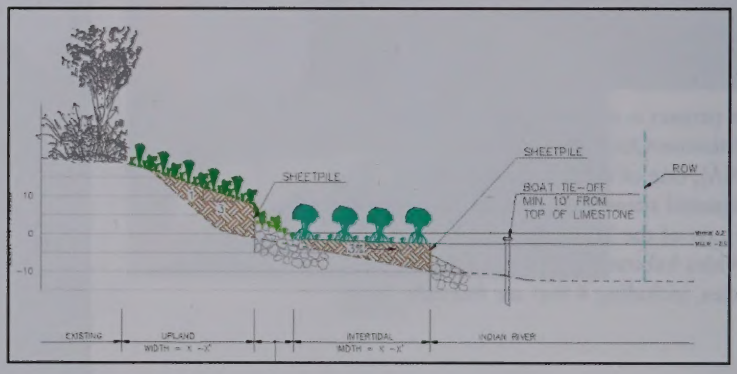
Project Number: AE-ES-10-04

Objective

Design alternatives to stop shoreline erosion of the Jupiter Inlet Lighthouse ONA in the area bordering the historic lighthouse.

Outcome

Design for this ARRA project was completed in FY 2011. The project was turned over to Palm Beach County for construction.



Background

This project is within the Jupiter Inlet Lighthouse ONA, one of three such federally designated sites in the country, and the only one east of the Mississippi River. The on-site project area includes approximately 1,540 feet of shoreline at the confluence of the Loxahatchee River and Indian River Lagoon, approximately 0.5 mile west of Jupiter Inlet. BLM funded an engineering study to address the critical need for slope stabilization along this stretch of shoreline.

Benefits

The project will stabilize approximately a half mile of shoreline to enhance recreational opportunities. The BLM's study, which received public comment and analysis as well as review by working group partners and permitting agencies, resulted in a shoreline stabilization design.

This project was funded by ARRA to provide economic stimulus funding to create and maintain jobs, stimulate the economy, encourage infrastructure investment, and enhance the BLM's national system of public lands.

FY 11

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Vernal Warehouse Renovation / Trailer Planning Building Replacement

Customer: Andy Palmer, Vernal District Office

AE-UT-11-02

Objective

Produce a design/build bid package to renovate the Vernal Field Office's warehouse and to construct a new administration building.

Outcome

The team produced the draft design/build bid package, including conceptual drawings, a scope of work/outline specifications (with the collaboration of Andy Roberts) and a government estimate (with the help of John Treacy).

Background

The BLM is in need of a remodel to an existing warehouse at approximately 4,000 SF and new construction for an administration building (to be named the VFO Annex Building) at approximately 2,290 SF to replace the temporary planning trailer.

Benefits

The BLM will have updated facilities to meet health, safety, and welfare requirements for its employees.

Planning, Design & Construction

Project Lead: Nell Dickerson, AIA LEED AP, PMP

Title: Malta Field Office Remodel

Customer: Rich Adams, Malta Field Office

Project Number: AE-MT-10-02

Objective

Design a conference room, ADA restrooms and supporting spaces to accommodate the expanding needs of Montana's Malta Field Office.

Background

The field office requested a retrofit of the existing building to the extent practical. Utilization rate of 200 SF/person allowed an additional 860 SF of new construction. The field office also requested schematic plans and an estimate for a solar array to offset electrical use at the site.

Benefits

The retrofit would accommodate the growing needs of the staff and comply with requirements for their health, safety, and welfare. An open-office design with moveable partitions was suggested to allow for maximum flexibility to accommodate the office's seasonal staffing requirements.

Outcome

The team produced schematic drawings (Andy Roberts produced the alternative energy concepts and estimates), made suggestions for interior improvements, and generated an estimate. Because of budgeting restraints, the project was turned down and did not move forward.

Existing Conditions

Suggested Solution (photo: Inkstone Architecture, Missoula, MT)

FY 11

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Wildland Fire Facilities

Customer: Terry O'Connell, BLM Wildland Fire Management

Project Number: (multiple)

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Background

BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Outcome

The status of the projects shown below is noted in the following pages.

- Hidden Valley Fire Facility - Susanville, CA (AE-CA-10-01)
- Plymouth Mountain Interagency Fire Facilities - Carson City, NV (AE-NV-10-03)
- Craig Fire Facilities - Craig, CO (AE-CO-10.01.1)
- Lamonta Interagency Fire Operations Building - Prineville, OR (AE-OR-10-01)
- Fort Howes Fire Facility - Fort Howes, MT (AE-MT-11-01)
- Ruby Mountain Fire Facilities - Elko, NV (AE-NV-10-02; AE-NV-10-13)

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Hidden Valley Fire Facility Landscaping

Customer: Paul Fulkerson, CASO

Project Number: AE-CA-10-01

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Background

BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Outcome

The landscaping was completed after construction of the Hotshots Facility with the remaining contingency funds. Construction cost was $1.3 thousand.

FY 11

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Plymouth Mountain Interagency Fire Facilities

Customer: June Loreman, NVSO

Project Number: AE-NV-10-03

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Background

BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Outcome

A Hotshots Facility for the BLM and a Crew Quarters Facility for the U.S. Forest Service are under construction via a MATOC design-build contract and are scheduled for completion in FY 2012. Construction cost was $4.2 million.

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Craig Fire Facilities

Customer: Geoff McManus, COSO

Project Number: AE-CO-10-01

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Background

BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Outcome

The Hotshots Facility is under construction and scheduled for completion in FY 2012, with a construction cost of $2.7million. Owing to insufficient funding, the Crew Quarters construction will be phased in gradually.

FY 11

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Lamonta Interagency Fire Operations Building

Customer: Dana Cork, Prineville District Office

Project Number: AE-OR-10-01

Objective

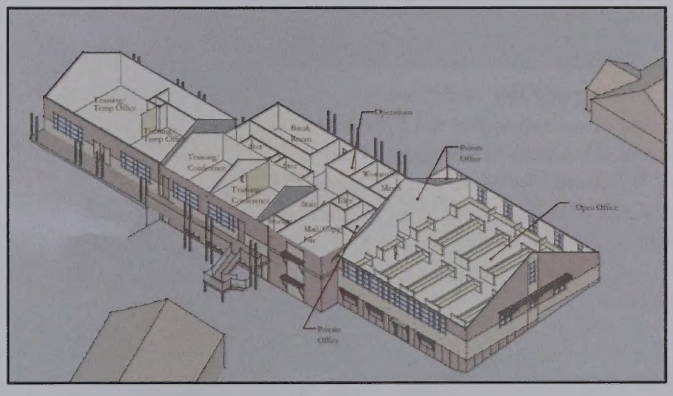
Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Outcome

AE staff provided design review and value analysis. The AE design was completed in FY 2011. The design cost was$570 thousand (ARRA funded).

Background

BLM and iInteragency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.



Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Fort Howes Fire Facility

Customer: Greg Bergum, MTSO

Project Number: AE-MT-11-01

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Background

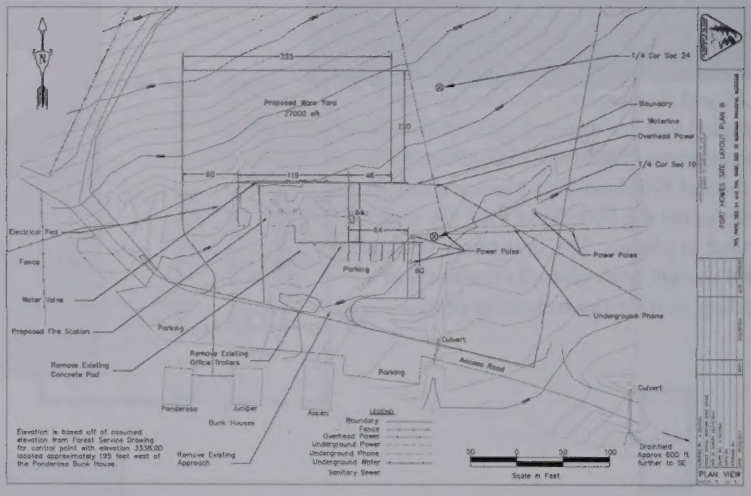
BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's wildland fire management mission.

Outcome

Planning and conceptual design was initiated in FY 2011. Design is scheduled for FY 2012, with construction in FY 2013.



FY 11

Planning, Design & Construction

Project Lead: Jack Emrick, AIA

Title: Ruby Mountain Fire Facilities

Customer: June Loreman, NVSO

Project Numbers: AE-NV-10-02; AE-NV-10-13

Objective

Design and construct wildland fire facilities to meet the objectives of federal Wildland Fire Management.

Outcome

Construction of two Crew Quarters facilities and the ARRA-funded Hotshots Facility was completed in FY 2011. Construction cost was $4.9 million.

Background

BLM and interagency fire facilities are designed and constructed per the Five-Year Construction/Deferred Maintenance Plan of federal Wildland Fire Management. Fire facilities on the Five-Year Plan are typically funded in phases. The first phase of funding is for design, with phased construction funding starting the following year.

Benefits

The new fire facilities will enable hotshot firefighters and wildland fire crews to meet the BLM's Wildland Fire Management mission.

Planning, Design & Construction

Project Lead: Ed Giagni, RA

Title: Walking Box Ranch Design

Customer: Robbie McAboy, Las Vegas Field Office

Project Number: AE-NV-10-07

Objective

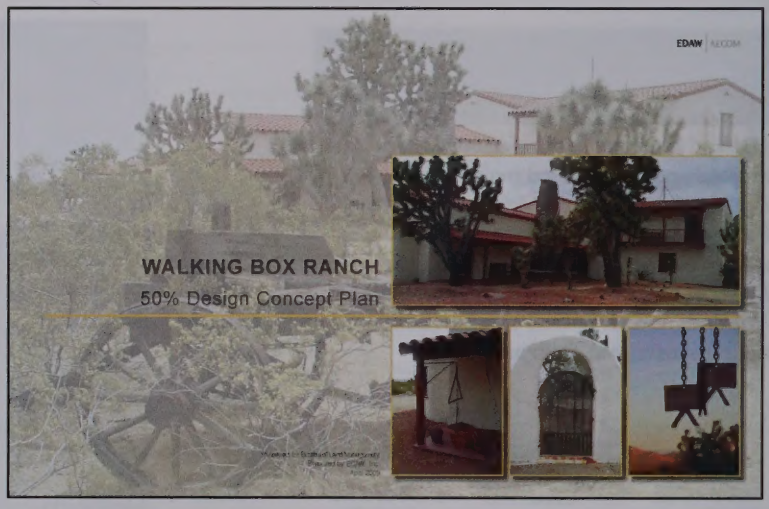
Assist the customer with management of an IDIQ AE design contract, and meet or exceed customer expectations. Protect and interpret the historic Walking Box Ranch and develop a field research center.

Background

Walking Box Ranch was the one-time home of Hollywood film stars Rex Bell and Clara Bow.

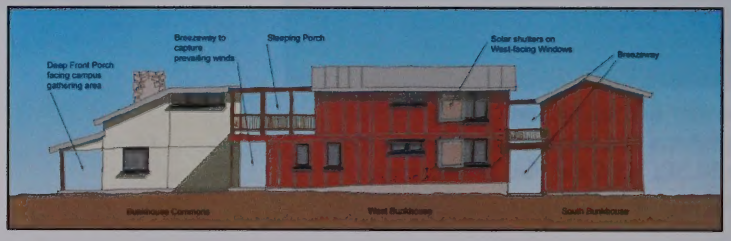
Outcome

FY 2011 saw the completion of the 100 percent design development phase, with the 100 percent construction documents and construction contract award scheduled for completion in FY 2012.



Benefits

The project has resulted in a mutually beneficial partnership between the BLM and the University of Nevada, Las Vegas, in which the historic ranch property can be stabilized, restored, interpreted, managed and maintained. The ranch will become a center for the study of arid ecosystems by providing facilities in which to conduct environmental research.


Deep Front Porch facing campus gathering area
Breezeway to capture prevailing winds
Sleeping Porch
Solar shutters on West-facing Windows
Breezeway

FY 11

Planning, Design & Construction

Project Lead: Ed Giagni, RA

Title: Grand Staircase - Escalante National Monument, Administrative Facility, Kanab, UT

Customer: Trent Duncan, UTSO

Project Number: AE-UT-10-02

Objective

Assist the customer with any construction administrative needs, and meet or exceed customer expectations.

Background

The project will replace two aging and inefficient administrative offices that have life safety deficiencies with a new, one-story Administrative Office Building. The new building will have approximately 13,600 gross SF to accommodate 69 full-time-equivalent staff. A new warehouse of approximately 6,200 gross SF and wareyard will also be constructed on site. New utility infrastructure will be developed off-site for connections to city utilities.

Benefits

The new structure will reduce duplication of resource and support space while better accommodating staffing levels and function. The design for this new facility also incorporates numerous sustainable design practices and features that will provide an abundance of natural light, energy efficient equipment, including a ground-source heat pump, and building envelope, and a 30 kW solar photovoltaic array that will generate much of the facility's power. The project is expected to obtain a LEED Gold certification.

Outcome

August 2010 saw the award of a construction contract for this $6.8 million facility. Construction began in November 2010, and the project is scheduled for completion in early February 2012.

Planning, Design & Construction

Project Lead: Ed Giagni, RA

Title: Worland Field Office Phase II – Building Upgrade Value Analysis Study

Customer: Mike Roberts, Worland Field Office

Project Number: AE-WY-10-02

Objective

Determine recommendations for value improvement and cost savings, while maintaining the required basic functions of the project, and validate the proposed design as appropriate.

Background

The study work plan for this proposed $2.8 million project followed the typical value analysis/value engineering process per SAVE International, and consisted of the following phases: information phase; investigation/function analysis phase; creativity phase; evaluation phase; development phase; presentation phase and implementation phase.

Benefits

During the development phase, various value analysis ideas were expanded into specific recommendations. While some of the individual ideas increased the budget, scope, and performance of the project, the cumulative recommendations and associated cost savings resulted in a total potential savings of $186,400.

Outcome

The value analysis (VA) study was conducted January 19 –20, 2011, at the BLM National Operations Center in Denver, CO. The VA team conceived 20 ideas in the creativity phase. After careful review, consideration, and evaluation, 3 ideas were moved to the design consideration category, and 6 were rejected for further development during the evaluation phase. Thus, 11 were analyzed in the development phase and resulted in specific recommendations and/or consideration.

FY 11

Planning, Design & Construction

Project Lead: Jack Reynolds, RLA

Title: Red Rock National Conservation Area Multi-Use Trail Project

Customer: Tim Wakefield, Red Rock National Conservation Area

Project Number: AE-NV-10-05

Objective

Provide a recreational transportation trail biker/hiker system that would be suitable for families and that would reduce the risk and danger of riding bicycles and walking on the shoulder of a high-speed highway, State Route 159.

Background

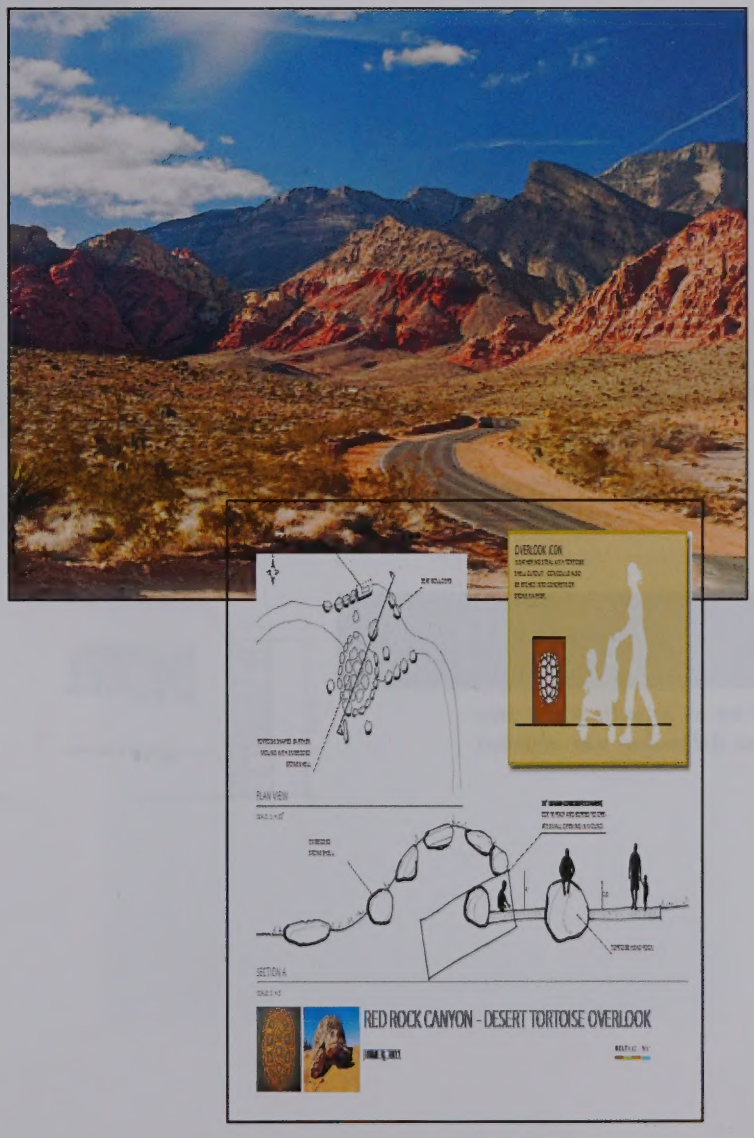
Red Rock National Conservation Area is a 198,000-acre natural area of spectacular beauty adjacent to the City of Las Vegas, Nevada. The Southern Nevada Public Land Management Act provided funding to the BLM for the project under its selected Capital Improvement Program.

Benefits

The project will create a multi-use trail system for hikers and bicyclists to have an educational and user experience enhanced by the spectacular beauty of Red Rock National Conservation Area.

Outcome

Work is ongoing to provide a multi-use trail from the edge of Summerlin Community Development to the Visitor Center to approximately Bonnie Springs, NV.



Planning, Design & Construction

Project Lead: Jack Reynolds, RLA

Title: Hogsback Day Use Picnic Area

Customer: Allysia Angus, Grand Staircase - Escalante National Monument/Escalante Field Office Project Number: N/A

Objective

Provide a recreational picnic site for day use.

Outcome

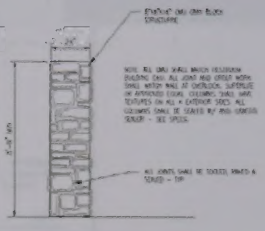
The project was canceled.

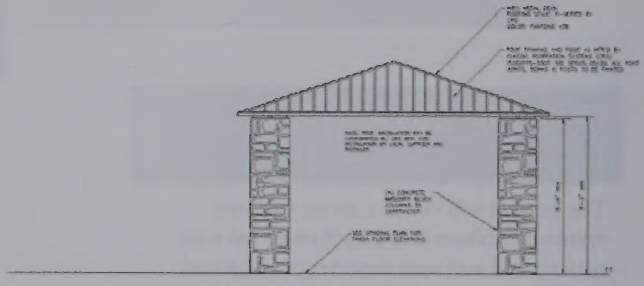
Background

Escalante Field Office requested the AE Branch's assistance in developing construction documents and specifications.

Benefits

There are no benefits at this time because the project was canceled.





FY 11

Planning, Design & Construction

Project Lead: Jack Reynolds, RLA

Title: Lorenzo Boat Ramp, Parking and Recreational Project, Idaho Falls District

Customer: Steve Janzen, Idaho Falls District Office

Project Number: AE-ID-10-05

Objective

Provide preliminary concepts and design for a recreational boat ramp and parking area along the Snake River.

Outcome

Concepts were sent to Idaho Falls District Office to the engineer and outdoor recreational planner to use as concepts for development.

Background

Idaho Falls District Office requested assistance in developing concepts for a boat ramp and parking project along the Snake River.

Benefits

The ideas provided will help BLM personnel future drawings for a boat ramp and parking area along the Snake River.

Planning, Design & Construction

Project Lead: Andy Roberts, PE, LEED AP

Title: Anasazi Heritage Center, Upgrade Fire Protection System

Customer: Blaine Vecchia, Anasazi Heritage Center/Grand Junction Field Office

Project Number: AE-CO-11-01

Objective

Upgrade and correct deficiencies in the existing fire sprinkler system at the Anasazi Heritage Center.

Outcome

The contract was awarded in September 2011.

Background

The existing fire sprinkler system at the Heritage Center has several deficiencies, including "on-off" fire sprinklers that need to be replaced, and missing fire sprinklers in ceiling plenums and the lobby. This project consists of replacing all of the existing "on-off" sprinklers, adding sprinklers where they are currently missing, and correcting other deficiencies that have been identified.

Benefits

The project will bring the fire sprinkler system at the Anasazi Heritage Center up to current National Fire Protection Association (NFPA) standards.

FY 11

Planning, Design & Construction

Project Lead: Andy Roberts, PE, LEED AP

Title: California Trails Ground-Source Heat Pump Repair

Customer: Dave Jamiel, California Trail Center/Elko District Office

Project Number: AE-NV-11-06

Objective

Improve operation of the existing ground-source heat pump HVAC system at the California National Historic Trail Interpretive Center (CNHTIC).

Background

The existing HVAC system at the CNHTIC is very complex and has experienced operational difficulties ever since the building was constructed. This project consists of replacing and upgrading various components of the system, expanding and reprogramming the existing HVAC control system, and commissioning the HVAC system and controls.

Benefits

The project will improve comfort conditions in the CNHTIC and will provide a stable environment for the new interpretive exhibits inside the building. Commissioning will guarantee that the HVAC system is operating correctly at the end of the contract.

Outcome

The contract was awarded in September 2011.

Planning, Design & Construction

Project Lead: Dan Staton, FE

Title: Marys River Bridge

Customer: Norm Rockwell, NVSO

Project Number: AE-NV-10-14

Objective

Design a bridge for a BLM road in northeastern Nevada, near Elko.

Outcome

The design was completed in March 2011 according to the 2010 "AASHTO LRFD Bridge Design Specifications," the nationwide standard for bridge design. Construction began at the end of August 2011 and was completed in November 2011.

Background

Marys River, which goes dry toward the end of the year, allows the channel to be crossed at a low-water crossing. However, during runoff months between February and August, the flow is substantial, and the river cannot be crossed without a bridge or a culvert. The previous major culvert washed out in a large storm event, and access to BLM land since then has been very difficult.

Benefits

The design made use of 65-foot-long driven steel piles to allow the bridge load to be transferred deeper into the ground, where better soil structural properties exist. This transference will allow the bridge to carry a full HL-93 load and protect against the bridge washing out in large storms.

FY 11

Planning, Design & Construction

Project Lead: Chanh Tran, PE

Title: Escalante Interagency Visitor Center – Replace Ductwork

Customer: Trent Duncan, UTSO

Project Number: AE-UT-11-03

Objective

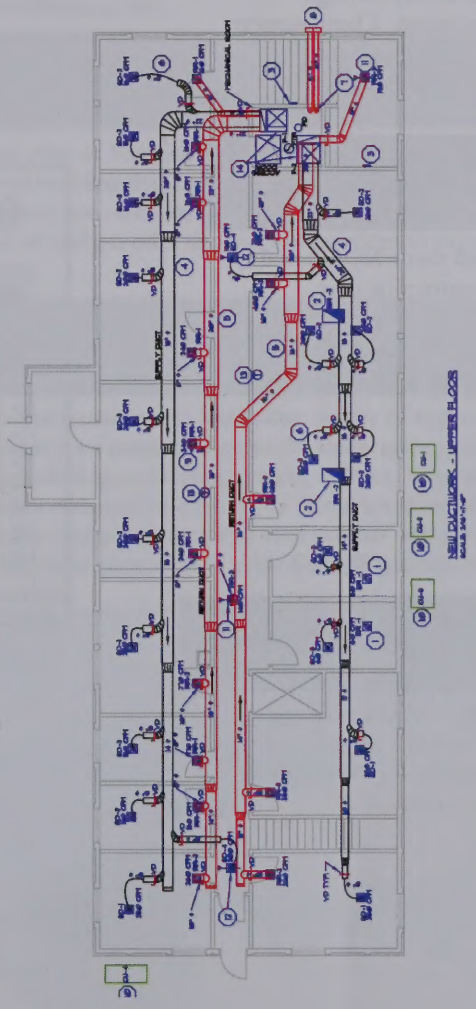
Provide better airflow to each office within the building.

Outcome

Ductwork replacement will improve cooling and airflow to employee offices. Project is pending until funding is obtained.

Background

Existing ductwork was designed and installed in 1993 with a system of flexible ducts connected to four supply and return main trunks in the attic. The flex ducts did not have steel band supports; therefore, they collapsed onto themselves and reduced the supply of air to offices. The building air conditioning equipment was found to be relatively new and in good working condition. However, the existing flexible ducts in the attic had impaired the total airflow.



Benefits

Better air delivery and balancing will improve productivity and boost morale.

Planning, Design & Construction

Project Lead: John Treacy, PE

Title: Construction Cost Estimates

Customer: AE Branch, NOC

Project Number: N/A

Objective

Provide in-house construction cost estimating support for the NOC's project design team as well as any NOC client states. Cost estimating support includes development of preliminary through construction cost estimates. Client support services include review and analysis of contractor and AE cost proposals.

Background

The BLM determined that a NOC-based ability to provide construction cost estimates would enhance the range of services available to both the NOC and participating clients.

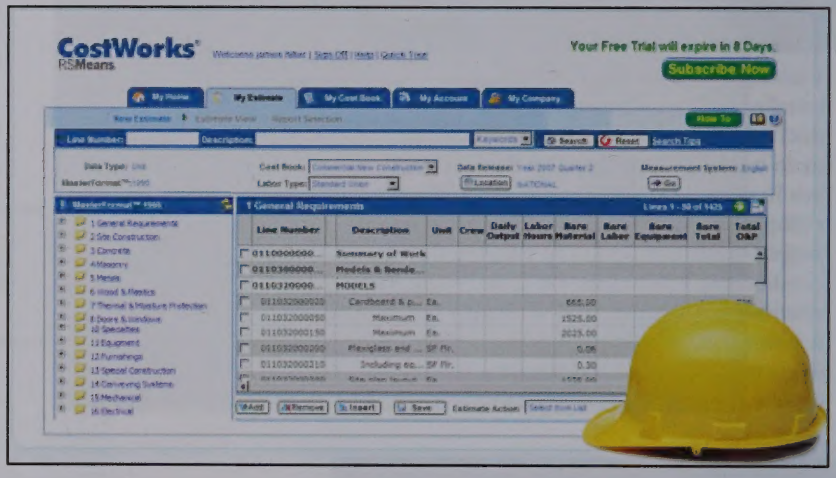
Benefits

The information will provide a basis for funding requests as well as a reliable government cost estimate for evaluation of construction contractor bids and modifications.

Outcome

The AE Branch completed several cost estimates including:

- National Historic Trails Interpretive Center, Casper, WY – Roof Replacement
- National Interagency Fire Center, Boise, ID – Sewer Alternates
- Orilla Verde Recreation Site, NM
- Ely Seed Warehouse, Ely, NV
- Vernal, Utah Field Office – Warehouse Remodel



FY 11

Planning, Design & Construction

Project Lead: Ken White

Title: Farmington Construction Administration

Customer: Elaine Lopez, NMSO

Project Number: AE-UT-10-01

Objective

Serve as the COR, overseeing the construction administration of a new field office and warehouse building for Farmington, NM. Duties include all work (Statement of Work, government estimate, negotiations, etc.) associated with the award of construction administration and project inspector task orders; management of the AE, contractor, and project inspection; review of all construction administration documents (daily logs, Requests for Information, shop drawings, change order requests, pay requests, etc.); site inspections; final inspection; accept/reject for beneficial occupancy; and project close-review (completion of punch list, LEED certification, Operation and Maintenance manuals, handicap accessibility certification, etc.).

Background

The project is located on a site (approximately 15 acres) at the northeastern edge of Farmington. The property and adjacent lands are owned by the BLM. Field office personnel were housed in a 30-year-old building that had numerous electrical and mechanical problems. The size of the structure was inadequate; a warehouse area had been converted to offices, and storage of materials was primarily in steel pods in the wareyard. The office had been designated an oil and gas pilot site but had no room to expand to deal with the increased drilling and compliance monitoring requirements.

Benefits

The development includes a new field office of approximately 30,000 SF, a maintenance and warehouse facility of approximately 6,000 SF, and associated site development, including roads and parking, motor pool areas, storage yards, landscaping, pedestrian circulation and plazas, and trails. New utility infrastructure was developed, including connections to city utilities. The project also includes parking, pedestrian areas, picnic facilities, and access to adjacent trails managed by the City of Farmington and the BLM. In addition, the design for this new facility incorporated numerous sustainable design practices and features that will provide an abundance of natural light and energy-efficient equipment, including a 58 kW solar photovoltaic array that will generate much of the facility's power. The project is on track to obtain a LEED Gold certification.

Outcome

All construction documents were completed in December 2009. Upon completion of a "best-value" solicitation, a contract was awarded to the firm of Smith Construction Management for $11,447,000 in March 2010, and construction commenced in May 2010. Construction is scheduled for completion in December 2011. Contract total to date is $11,981,342.92.

FY 11

Planning, Design & Construction

Project Lead: Barry Welton, PE

Title: National BLM White River Field Office – Building and Site Assessment

Customer: Tony Leverett, Space Leasing Branch, NOC

Project Number: AE-CO-11-02

Objective

Provide a comprehensive roofing system assessment, as well as an assessment of any other factors (e.g., structural system [members and diaphragm], insulation materials and methods, venting and/or HVAC system) that are potentially contributing to the failure of the current roofing system's performance. Provide a site investigation to evaluate site drainage and determine the cause of site flooding under spring melt situations.

Background

The White River Field Office was constructed in 2007 as a build-to-lease. The building is approximately 26,596 SF, including warehouse and offices. It is located at 220 E. Market Street, Meeker, CO 81641. The office is also a collocation for Forest Service use.

The structure is a premanufactured metal building with a metal roof on girts. The roof exhibited ice damming and gutter problems, contributing to internal leakage and interior damage, especially along the North elevation. Some corrective actions were taken, but apparently these are not working. Water damage to the ceiling, floor, and walls has occurred throughout the building but is most prevalent along the building's North side.

Benefits

The AE Branch prepared construction documents for recommended improvements, which assisted the government in negotiating lease improvements to the building.

Outcome

The AE Branch produced an extensive engineering evaluation report with recommendations for improvements.

Technical Support Projects

AE Technical Support Mission

AE technical support provides the drawing and technical standards for the NOC's customers to manage projects. In addition, the NOC condition assessment group provides BLM state and district engineers with assistance in the performance and reporting of condition assessments on BLM-owned facilities and structures. The group also supports the BLM engineering program in the development of assessment protocols.

Technical Support Team

OC-670: Architecture and Engineering Branch

Robert Hart	**Branch Chief**
Ken Morin	Environmental Management

OC-671: Planning, Design and Construction Section

Jack Emrick	**PDC Technical Support Coordinator**
Dan Akin	Civil Engineering
Nell Dickerson	Architecture
Ed Giagni	Architecture
Jack Reynolds	Landscape Architecture
Chuck Svoboda	Electrical Engineering
Chanh Tran	Mechanical Engineering
Barry Welton	Structural Engineering
Ken White	Construction Management

OC-672: Engineering Program Support Section

Paul Peterson	**EPS Technical Support Coordinator**
Keith Christiansen	Bridges
Cy Hill	FAMS Program Analyst
Mary Anne Nelson	Roads
Andy Roberts	HVAC/Energy
John Treacy	Cost Estimating

Technical Support Projects

Project Title	Project Lead
AE Branch Website	Dickerson
Folio SharePoint Site maintenance	Dickerson
Ft. Craig Structural Stabilization	Dickerson
FY10 Fire Facilities Coordination	Emrick
FY10 AE-IT Coordinator	Emrick
FY10 MasterSpec Specification Update and Main.	Emrick
Attend Meetings and Prepare Updates	Hart
FY10 Engineering Advisory Team	Hart
DM SharePoint Site maintenance	Hill
General SharePoint Design and Support	Hill
FY10 CASHE SharePoint Site maintenance	Morin
FY10 EAT SharePoint Site maintenance	Nelson
TS SharePoint Site maintenance	Nelson
FY10 USFS T&D Collaboration of Tech Materials	Nelson
9102 - Facility Design Manual	Nelson
9103 - Facility Construction Manual	Nelson

Project Title	Project Lead
9110 - Transportation Manual	Nelson
9114 - Trails Manual and Handbook	Nelson
9115 - Primitive Roads Manual and Handbooks	Nelson
9184 - Drinking Water Supply Manual	Nelson
TR-9101-1 Def. Main. and Capital Imp. 5 yr Planning	Nelson
9101 - Facility Planning Manual	Nelson
9107 - FAMS Manual	Nelson
9113 - Road Pocket Field Guide	Nelson
9177 - Dams Pocket Field Guide	Nelson
IA Share Point Site maintenance	Staton
FY10 Cost Estimating Training for FAMS	Treacy
FY11 Cost Estimating Training for FAMS	Treacy
FY10 Cost Estimating Training for PDS	Treacy
AE SharePoint Site maintenance	Welton
Over The River - Review for Restoration Bond	Welton

FY 11

Technical Support

Project Lead: Dan Akin, PE, LEED Green Associate

Title: Red Rock Canyon Visitor Center – Issues Investigation

Customer: Tim Wakefield, Red Rock Canyon National Conservation Area

Project Number: AE-NV-11-08

Objective

Review outstanding issues upon completion of warranty periods and recommend actions to resolve these issues.

Outcome

A site visit during the first week of April 2011 resulted in a trip report outlining the issues in detail and offering solutions for the staff. As an additional deliverable, a scope document was prepared outlining a possible format and content for an operations and maintenance (O&M) manual, particularly oriented toward the water-based exhibits.

Background

The Red Rock Canyon Visitor Center was constructed in 2009 and 2010. Various warranty periods expired in early April 2011; however, there are outstanding issues of concern to the management staff at the site. This problem is compounded by the apparent entry into bankruptcy proceedings by the General Contractor.

Benefits

Using in-house staff at the NOC, it was possible to perform an unbiased evaluation of the various issues facing the site staff. In some cases, the information provided was sufficiently detailed to enable the on-site staff to procure the needed repairs. In other cases, it was possible to determine a clear course of action in order to rectify issues of ongoing concern.

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2010 AZ (4)

Customer: Terresa Reed, AZSO

Project Number: IA-AZ-10-01

Objective

Inspect bridges and major culverts in Arizona and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Arizona State Office requested that NOC provide inspections of the BLM's bridges and major culverts in the Colorado River and Gila districts to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of one bridge in the Kingman Field Office, one bridge in the Yuma Field Office, and two major culverts in the Safford Field Office during June 2010. Preliminary reports on the findings were discussed with field office personnel at the time of the inspections for those structures that needed repairs and maintenance. The final inspection reports were transmitted to the Arizona State Office in February 2011.

Burro Creek Bridge

FY 11

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2010 MT (31)

Customer: Greg Bergum, MTSO

Project Number: IA-MT-10-01

Objective

Inspect bridges and major culverts in Montana and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Montana State Office requested that NOC provide inspections of the BLM's bridges and major culverts in Western, Central, Eastern/Dakotas, and Hiline districts to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of 16 bridges and two major culverts in the Western District in August 2010, and the inspection of 12 bridges and one major culvert in the Central, Eastern/Dakotas, and Hiline districts in September 2010. Preliminary reports on the findings were discussed with state office personnel at the time of the inspections for those structures that needed repairs and maintenance. The final inspection reports were transmitted to the Montana State Office in August 2011.

Maiden Rock Bridge

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2010 UT (4)

Customer: Casey Matthews, UTSO

Project Number: IA-UT-10-02

Objective

Inspect bridges and major culverts in Utah and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Utah State Office requested that NOC provide inspections of the BLM's bridges in the Color Country District to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of two vehicular bridges and two trail bridges in Richfield Field Office during October 2010. Final inspection reports were transmitted to the Utah State Office in February 2011.

Hog Springs Footbridge

FY 11

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2010 WY (13)

Customer: Jim Honn, WYSO

Project Number: IA-WY-10-03

Objective

Inspect bridges and major culverts in Wyoming and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Wyoming State Office requested that NOC provide inspections of the BLM's bridges and major culverts in the Wind River/Bighorn Basin District to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of eight vehicular bridges and three major culverts in Lander Field Office and two vehicular bridges in Worland Field Office during June 2010. Preliminary reports on the findings were discussed with field and state office personnel at the time of the inspections for those structures that needed repairs and maintenance. Final inspection reports were transmitted to the Wyoming State Office in August 2011.

Little Sandy Bridge, Rock Springs, Wyoming

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2011 CA (19)

Customer: Paul Fulkerson, CASO

Project Number: IA-CA-10-01

Objective

Inspect bridges and major culverts in California and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The California State Office requested that NOC provide inspections of the BLM's bridges and major culverts in Central and Northern California to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of seven vehicular bridges and two trail bridges in Central California during June 2011, and two vehicular bridges in Central California and two vehicular bridges, one trail bridge, and five major culverts in Northern California during August 2011. Preliminary reports on the findings were discussed with field and state office personnel at the time of the inspections for those structures that needed repairs and maintenance.

South Lassen Street Bridge

FY 11

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2011 ID (16)

Customer: Gary Hunter, IDSO

Project Number: IA-ID-11-01

Objective

Inspect bridges and major culverts in Idaho and prepare inspection reports.

Background

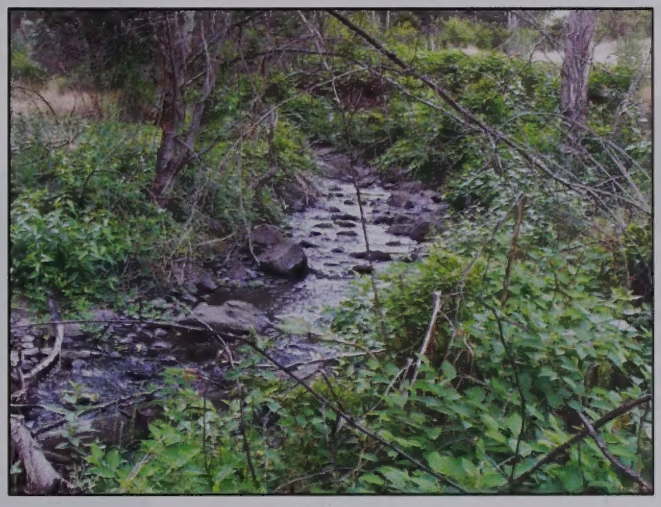
The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Idaho State Office requested that NOC provide inspections of the BLM's bridges in the Coeur d'Alene and Idaho Falls districts to comply with these requirements.

Benefits

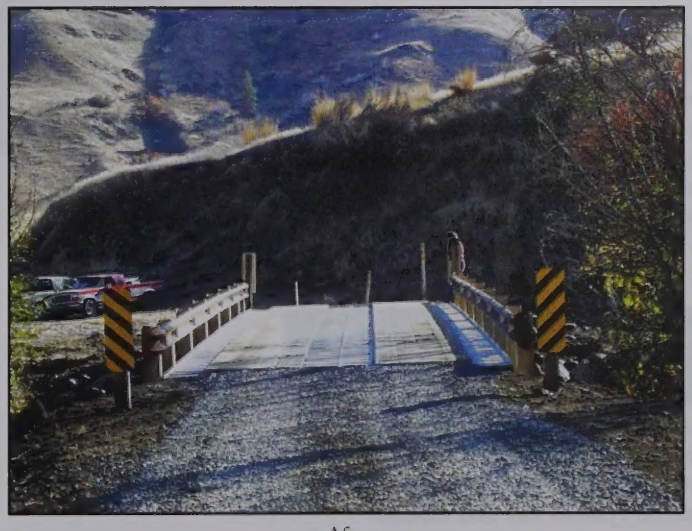
Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

Inspections of 16 structures were scheduled during October 2011.



Before



After

Eagle Creek Bridge, Cottonwood, Idaho

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2011 MT (3)

Customer: Greg Bergum, MTSO

Project Number: IA-MT-11-01

Objective

Inspect bridges and major culverts in Montana and prepare inspection reports.

Outcome

The NOC completed the inspection of three OHV bridges in the Pipestone OHV Recreation Area, Butte Field Office during July 2011. Final inspection reports were transmitted to the Montana State Office in August 2011.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Montana State Office requested that NOC provide inspections of the BLM's bridges in Pipestone OHV Recreation Area to comply with these requirements.

Gorge OHV Bridge

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

FY 11

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2011 UT (7)

Customer: Casey Matthews, UTSO

Project Number: IA-UT-11-01

Objective

Inspect bridges and major culverts in Utah and prepare inspection reports.

Outcome

Inspections of 7 structures were completed in September 2011.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Utah State Office requested that NOC provide inspections of the BLM's bridges in the Color Country and Green River districts to comply with these requirements.

Flume Trail Upper Bridge

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Technical Support
Inspection and Assessment

Project Lead: Keith Christiansen

Title: Bridge Inspections FY 2011 WY (22)

Customer: Jim Honn, WYSO

Project Number: IA-WY-11-01

Objective

Inspect bridges and major culverts in Wyoming and prepare inspection reports.

Background

The National Bridge Inspection Standards require that 20-foot-long and longer vehicular bridges be inspected at regular intervals not to exceed 2 years. BLM Manual Section 9112 – Bridges and Major Culverts requires that major culverts be inspected at regular intervals not to exceed 6 years. Major culverts are defined as those culverts with open-end areas that exceed 35 SF. Additionally, BLM policy requires that trail and pedestrian bridges be inspected at regular intervals not to exceed 2, 4, or 6 years, depending on complexity and height over obstructions. The Wyoming State Office requested that NOC provide inspections of the BLM's bridges and major culverts in the High Desert District to comply with these requirements.

Benefits

Inspections of bridges and major culverts detect deficiencies in the crossing structures and assist the state offices in keeping their transportation systems safe and useable.

Outcome

The NOC completed the inspection of four vehicular bridges and one trail bridge in Rock Springs Field Office during November 2010. Final inspection reports were transmitted to the Wyoming State Office in August 2011. NOC completed the inspections of 11 vehicular bridges, one trail bridge, and five major culverts in Rawlins Field Office during June 2011. Preliminary reports on the findings were discussed with field and state office personnel at the time of the inspections for those structures that needed repairs and maintenance.

Smiths Fork Bridge

FY 11

Technical Support

Project Lead: Mary Anne Nelson, PE

Title: TR-9101-1 Five-Year Deferred Maintenance and Capital Improvement Plan

Customer: Victor Montoya, WO

Project Number: TS-WO-11-01

Objective

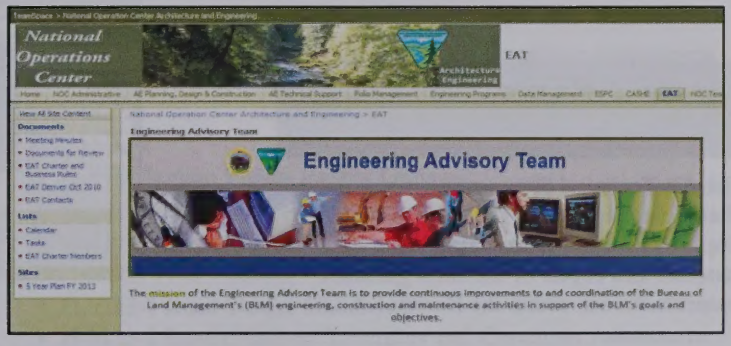
Update the technical reference.

Outcome

The Engineering Advisory Team (EAT) Review Team met, reviewed the document, and proposed updates. The material was reviewed, formatted, and distributed to each state office through the EAT SharePoint site.

Background

The technical reference is used every year as a guide for state offices to submit their project requests for the next FY work plan.


National Operations Center
EAT
Engineering Advisory Team
Engineering Advisory Team
The mission of the Engineering Advisory Team is to provide continuous improvements to and coordination of the Bureau of Land Management's (BLM) engineering, construction and maintenance activities in support of the BLM's goals and objectives.

Benefits

Updated information allowed each state office to submit proper documents.

Technical Support

Project Lead: Mary Anne Nelson, PE

Title: TS SharePoint Site Maintenance

Customer: Paul Peterson, NOC

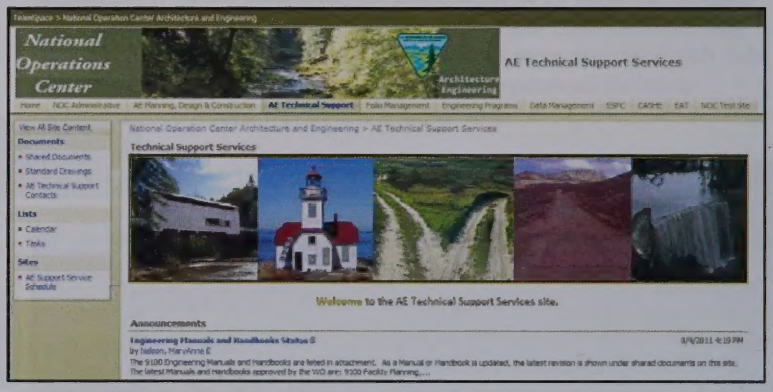
Project Number: TS-WO-11-02

Objective

Update the AE Technical Support Services SharePoint site monthly.

Outcome

The AE Technical Support SharePoint Services site was updated to provide the most recent materials for BLM employee use.



Background

The AE Technical Support Services SharePoint site is to be used by BLM employees for the status of guidance materials and copies of the latest guidance materials for use within the Bureau.

Benefits

The AE Technical Support Services SharePoint site provides a link from the NOC to BLM employees for all updated engineering guidance within the Bureau.

FY 11

Technical Support

Project Lead: Mary Anne Nelson, PE

Title: Manual Section Updates

Customer: Victor Montoya, WO

Project Number: TS-WO-11-01

Objective

Update various sections of the BLM Manual.

Background

The BLM Manual and handbooks establish guidance for all BLM planning, design, construction, and maintenance.

Benefits

The BLM Manual and handbooks provide BLM designers with updated guidance for all BLM planning, design, construction, and maintenance.

Outcome

The EAT Review Team reviewed the documents and proposed updates. The material was reviewed, formatted, forwarded to the WO for surnaming, and placed on the SharePoint site.

Updates:

TS-WO-11-1.8
Manual Section 9115 – Primitive Roads

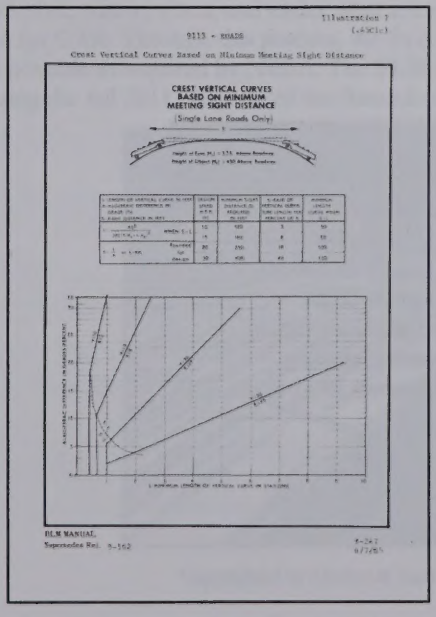
- H-9115-1 Primitive Road Design Handbook
- H-9115-2 Primitive Roads Inventory and Condition Assessment Guidance & Instructions Handbook

TS-WO-11-1.12

- Manual Section 9102 – Facility Design
- Manual Section 9103 – Facility Construction
- Manual Section 9107 – FAMS

Manual Section 9113 – Roads

- H-9113-1 Road Design Handbook
- H-9113-2 Roads National Inventory and Condition Assessment Guidance & Instructions Handbook



Technical Support

Project Lead: Mary Anne Nelson, PE

Title: Update Pocket Field Guide: Excerpts from Manual Section 9113 (Roads) Excerpts from BLM Manual Section 9177 (Dams)

Customer: Victor Montoya, WO

Project Numbers: TS-WO-11-01.7; TS-WO-11-01.11

Objective

Update Pocket Field Guide - Excerpts from Manual Section 9113 (Roads).

Update Pocket Field Guide - Excerpts from Manual Section 9177 (Dams).

Background

The updated Pocket Field Guide provides a field guide to BLM road and dam planning, design, construction, and maintenance.

Benefits

The Pocket Field Guide excerpts from Manual Section 9113 (Roads) and Manual Section 9177 (Dams) provide BLM employees with updated guidance for all BLM road and dam planning, design, construction, and maintenance in a pocket field guide format.

Outcome

The AE Branch updated the existing Pocket Field Guide to reflect the updates that were approved by the EAT.

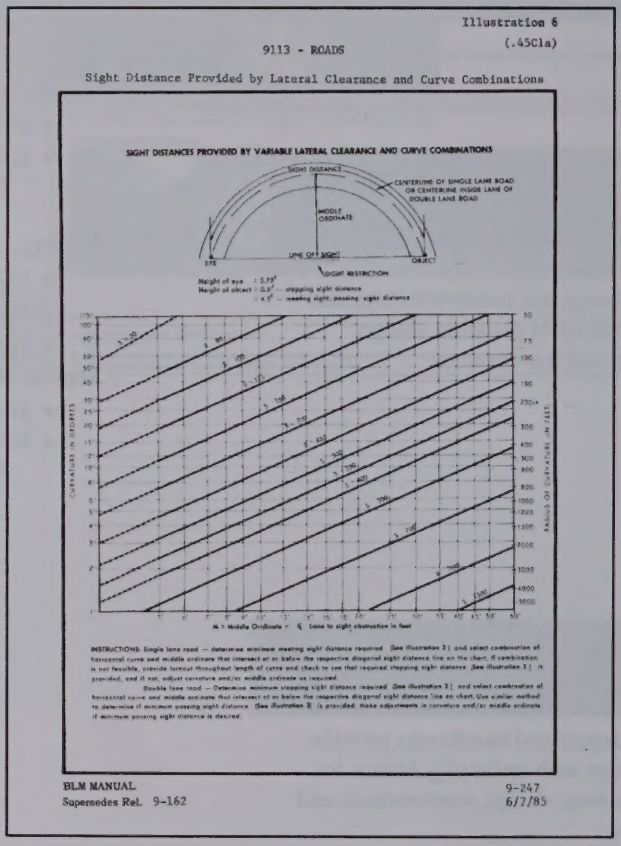


Illustration 6
(.45C1a)

9113 - ROADS

Sight Distance Provided by Lateral Clearance and Curve Combinations

SIGHT DISTANCES PROVIDED BY VARIABLE LATERAL CLEARANCE AND CURVE COMBINATIONS

BLM MANUAL
Supersedes Rel. 9-162

9-247
6/7/85

FY 11

Technical Support

Project Lead: Barry Welton, PE

Title: Over The River – Review for Restoration Bond

Customer: Vince Hooper, Royal Gorge Field Office

Project Number: AE-CO-11-03

Objective

Review quantity submittal and cost to determine bond amount for restoration of project.

Outcome

The project is a privately funded art project, which will provide recreational opportunity to the public.

Background

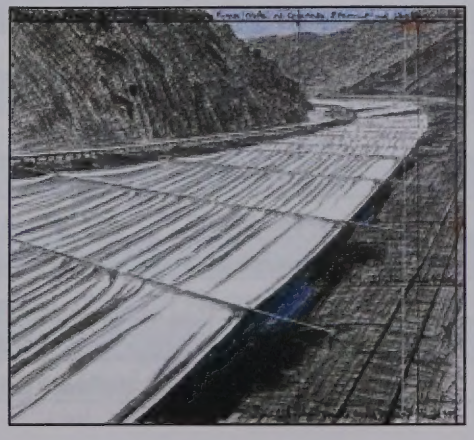
Over The River ™ (OTR) is a proposed work of art by the artists Christo and Jeanne-Claude and OTR Corp (collectively referred to as the "applicant"). The applicant proposes to install approximately 5.9 miles of fabric panels suspended above the Arkansas River in eight select areas along a stretch of river between the towns of Salida and Canon City, Colorado. The installation would require the use of lands administered by the BLM, Colorado State Land Board (SLB), private land, lands cooperatively managed by Colorado State Parks in the Arkansas Headwaters Recreation Area, and Union Pacific Railroad rights-of-way.

Through the application process, the BLM determined that an Environmental Impact Statement (EIS) would be required in order to proceed with the proposal owing to the project's complexity, the controversial nature of the proposal, concerns regarding public safety, and the potential for significant impacts. The applicant also made a specific request for an EIS. An EIS is a document required by the National Environmental Policy Act (NEPA) for federal government agency actions "significantly affecting the quality of the human environment." The EIS process will assess the direct, indirect, and cumulative impacts of the proposed project and a reasonable range of alternatives, solicit feedback from the public, and consult with agencies and organizations with jurisdiction in the project area and special expertise with respect to environmental issues.

The BLM is the lead federal agency with the final authority to determine whether, where, when, and under what terms and conditions, a BLM land use permit would be issued to the project applicant for OTR. Through this process, the BLM intends to avoid, minimize, or mitigate potential environmental impacts to the extent possible as required by NEPA. The BLM is working on the last steps of the analysis and anticipates the release of the Final EIS during the fall 2011. Release of the Record of Decision will follow.

Benefits

The review will help determine amount of restoration bond required.



Copyrighted by Christo & Jeanne-Claude

Data Management Projects

Data Management Mission

The data management team provides BLM users with the information and assistance to maintain data in FAMS and related applications. The group also establishes and publishes standards for ensuring data integrity.

Data Management Team

OC-671: Planning, Design and Construction Section

Chanh Tran	FAMS Data Support

OC-672: Engineering Program Support Section

Paul Peterson	**EPS Program Coordinator**
Cy Hill	FAMS Program Analyst
Andrew Moss	Rec and Admin Data/SCEP
Dan Staton	Dams and Roads Data
John Treacy	Cost Data

Data Management Projects

Project Title	Project Lead
FRPP Submission-Owned Property	Hill
FAMS User Support	Hill
FAMS RCA / New User Training	Hill
FAMS Remedy	Hill
FAMS Data Cleanup	Hill
FAMS Documentation	Hill
PLSS Submission-Owned Assets	Hill
SharePoint and Website Development	Hill
FAMS Steward	Hill
FY11 FAMS Cost Estimating/Modeling	Treacy

FY 11

Data Management

Project Lead: Cy Hill

Title: Data Stewardship

Customer: Luis Coppa, WO

DM-WO-11-01 to 07-10

Objective

Support the AE Branch's data needs. Support the Facility Asset Management System (FAMS) Bureau-wide.

Background

The AE Branch was in need of a dedicated information technology team member with expertise in business case support.

Benefits

For the first time, the AE Branch has a dedicated data steward to serve as the backbone for all of its data needs. Cy Hill is as creative as she is competent and has a solution for every request, no matter how far-fetched it may seem. The entire BLM field benefits from an expert and helpful FAMS leader.

Cy provides numerous types of support, including:

- Data Stewardship
- Training/Documentation
- User Representation
- Data Calls/Reports
- Engineering Support
- SharePoint/Website

Outcome

The AE Branch not only provided for FAMS data support but also implemented a new project management system and expanded its SharePoint site.

NOC's dedication to FAMS is far-reaching and includes responsibility for the training and ongoing support of all users. Below is a list of just a few of the Data Management accomplishments for FY 2011:

Project	Program
AE SharePoint Site maintenance	AE Technical Support Services
DM SharePoint Site maintenance	AE Technical Support Services
Folio SharePoint Site maintenance	AE Technical Support Services
CASHE SharePoint Site maintenance	AE Technical Support Services
EAT SharePoint Site maintenance	AE Technical Support Services
General SharePoint Design and Support	AE Technical Support Services
IA SharePoint Site maintenance	AE Technical Support Services
TS SharePoint Site maintenance	AE Technical Support Services
FAMS Data Cleanup	Data Management
FAMS Documentation	Data Management
FAMS RCA / New User Training	Data Management
FAMS Remedy	Data Management
FAMS Steward	Data Management
FAMS User Support	Data Management
FRPP Submission-Owned Property	Data Management
PLSS Submission-Owned Assets	Data Management
SharePoint and Website Development	Data Management
AE PM 2011 AE Project Portfolio	Folio Management
AE PM Develop 2011 Work Plan	Folio Management
AE PM Upload Work Plan into SharePoint	Folio Management

Data Management

Project Lead: John Treacy, PE

Title: FAMS FY 2011 Cost Codes, Current Replacement Values, Maintenance Cost Factors, Cost Deficiencies, and Dam Deficiencies

Customer: Luis Coppa, WO

Project Number: DM-WO-11-06

Objective

Improve the overall quality of BLM asset models and definitions and provide current cost data for each asset's current replacement value (CRV) and maintenance cost factor (MCF). As part of the FAMS integrated system approach, cost deficiency models are updated regularly to provide current cost data for use in the development of work tickets that ultimately form the basis for deferred maintenance costs.

Background

This is an iterative process that evolves throughout the year and is based on input from the Maintenance Cost Code team and the EAT. The models are regularly reviewed, revised, and updated to better reflect and capture BLM assets. Using the most current edition of the RSMeans Building Construction Cost Data, asset model costs can be consistently reproduced and updated using a single cost data source from year to year.

Benefits

Having the BLM develop cost deficiency models in-house, instead of outsourcing to a private contractor as in the past, has saved approximately $125,000 annually. Ultimately, a more integrated and streamlined process has been established to provide current cost data within FAMS.

Outcome

The AE Branch updated approximately 175 cost codes, CRVs, and MCFs; updated 156 dam cost deficiency models and completed work on 1,366 models.

Little Robber Detention Dam, south of Rawlins, Wyoming

Engineering Programs Projects

Engineering Programs Mission

The NOC Condition Assessment group assists BLM state and district engineers in the performance and reporting of condition assessments on BLM-owned facilities and structures. The group also supports BLM's Engineering Program in the development of assessment protocols.

Engineering Programs Team

OC-670: Architecture and Engineering Services Branch

Ken Morin	**Environmental Management**

OC-671: Planning, Design and Construction Section

Jack Emrick	**Master Specifications and AutoCAD**
Ed Giagni	Value Engineering
Barry Welton	Seismic Safety

OC-672: Engineering Program Support Section

Paul Peterson	**EPS Program Coordinator**
Dan Akin	Dam Safety Inspections
Cy Hill	FAMS Program Analyst
Mary Anne Nelson	Engineering Standards/Roads
Andy Roberts	Energy Management
John Treacy	Cost Estimating

Engineering Programs Projects

Project Title	Project Lead
Dam Inspections NM (44)	Akin
Dam Inspections WY FY11	Akin
Dam Classification Study Encino 49	Akin
Bridge Inspections FY10 AZ (4)	Christiansen
Bridge Inspections FY10 CA (10)	Christiansen
Bridge Inspections FY10 ID (21)	Christiansen
Bridge Inspections FY10 MT (31)	Christiansen
Bridge Inspections FY10 WY (18)	Christiansen
Bridge Inspections FY10 UT (4)	Christiansen
Bridge Inspections FY11 CA (19)	Christiansen
Bridge Inspections FY11 ID (16)	Christiansen
Bridge Inspections FY11 WY (36)	Christiansen
Bridge assessment SharePoint site	Christiansen
Bridge Inspection UT FY11 (7)	Christiansen

Project Title	Project Lead
Bridge Inspection FY11 MT (3)	Christiansen
Dam Safety Program Oversight	Peterson
Dam Safety RDSR	Peterson
Dam Safety Working Group	Peterson
Dam Safety Independent Oversight	Peterson
Dam CDR for Hult Pond	Peterson
Dam FEMA Progress Report	Peterson
Road Condition Assessment FY11	Peterson
Dam Comprehensive Review Little	Peterson
Dam Classification Arrow Canyon Dam	Peterson
Dam Classification BR12 Dam	Peterson
Road FLHP 2011 (Program	Peterson
Rec Site Assessments Moab UT	Treacy
Seismic Safety Program Lead WO199	Welton

Engineering Programs

Project Lead: Dan Akin, PE
LEED Green Associate

Title: New Mexico Dam Condition Assessments FY 2011

Customer: Elaine Lopez, NMSO

Project Number: IA-NM-11-02

Objective

Perform condition assessments for 44 dams on the National Inventory of Dams (NID) to comply with internal standards of performance, which require inspections on a five-year cycle (low-hazard dams) or annually (significant or high-hazard dams), and to populate FAMS with updated information on dams and updated work orders.

Background

As a bureau, the BLM has established an internal standard for the periodic inspection of its NID-listed dams. This standard was developed in compliance with national criteria and related legislation and directives, as well as Department of the Interior goals and criteria.

Benefits

This project will increase the number of compliant dams in NM from 30 to 74. There are currently 95 dams on the NID in the NM BLM system. In addition to eliminating from FAMS those dams that do qualify for NID listing, the project has entered updated information and work orders for those dams remaining on the NID. This work will aid in developing funding priorities in future years.

Outcome

Of 44 dams inspected, 13 are eligible to be de-listed. Four dams were found to be either breached or flanked, requiring extensive repair or decommissioning. Twenty dams require significant repair.

Badger Detention Dam, southwest of Albuquerque, New Mexico

FY 11

Engineering Programs

Project Lead: Dan Akin, PE
LEED Green Associate

Title: Wyoming Dam Inspections FY 2011

Customer: Jim Honn, WYSO

Project Number: IA-WY-11-03

Objective

Assist the Wyoming State Office engineer and staff update their inspections of dams in order to comply with Bureau and departmental goals and standards regarding NID-listed dams.

Background

The BLM LM has established a goal to inspect all low-hazard dams on at least a five-year cycle, and all significant or high-hazard dams annually.

Benefits

Dams that do not meet the criteria to be included in the NID list may be de-listed and dropped from the periodic inspection list. Doing so will enable the FAMS data for WY to be updated with new work orders. In addition, having current and accurate information about the dams will enable better management of the facilities, and provide current estimates for prioritization of funding.

Outcome

This project will help the WY State Office staff meet inspection criteria. Twenty-nine dams are included in the FY 2011 program..

Detention dam, south of Rawlins, Wyoming

Engineering Programs

Project Lead: Paul Peterson, PE

Title: Dam Safety Operations Lead

Customer: Marjorie Chiles, WO

Project Number: IA-WO-11-01

Objective

Manage the BLM's operations under the Dam Safety Program.

Outcome

The BLM has maintained compliance with DOI policy in the Dam Safety Program.

Background

The Dam Safety Program lead's duties include representing the BLM on the DOI Working Group on Dam Safety, which meets quarterly. The Working Group includes senior engineers from the Fish and Wildlife Service, Bureau of Indian Affairs, Bureau of Reclamation, National Park Service, Office of Surface Mining, and the BLM. The lead also coordinates the BLM's work on five interagency engineering teams that are developing a new DOI Dam Safety Policy based on risk management.

Hult Pond Dam

Benefits

This work provides public safety and resource protection.

FY 11

Engineering Programs

Project Lead: Paul Peterson, PE

Title: Road Condition Assessment

Customer: Luis Coppa, WO

Project Number: IA-WO-11-02

Objective

Provide a DOI-mandated condition assessment of the BLM road system.

Background

This work includes COR and contract management for the current road condition assessment contract.

Benefits

The Bureau will have a geospatial and narrative record of the agency's road system and a cost estimate of the amount of deferred maintenance required to repair the deficiencies identified in the assessment.

Outcome

Through an AE contract awarded at $2,700,000, an estimated 12,000 miles of roads will be assessed in 2011–12. During 2011 approximately 7,000 miles of road have been assessed. This project will complete the assessment and inventory of the BLM's 45,000-mile road system. This ongoing work provides the Bureau with a baseline condition assessment of its road system and ensures compliance with DOI policy on condition assessments for BLM roads.

Primitive road

Engineering Programs

Project Lead: Andy Roberts, PE LEED AP

Title: Energy Management Information System

Customer: Luis Coppa, WO

Project Number: CA-WO-10-06

Objective

Develop an Energy Management Information System (EMIS) to replace the existing energy tracking spreadsheet. The EMIS will provide accurate energy consumption information that will aid in reducing the BLM's energy consumption, energy cost, and greenhouse gas emissions (carbon footprint).

Outcome

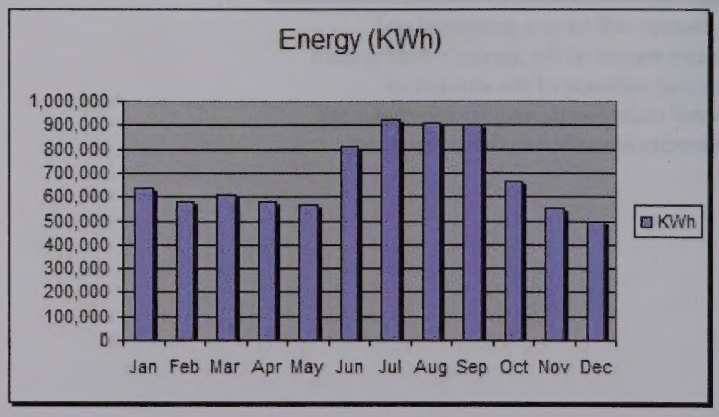
A contract was awarded on September 22, 2010, to develop and manage a comprehensive energy relational database and online reporting system, which will serve as an Internet-based EMIS for the entire BLM. This online relational database will be used by all BLM offices for tracking consumption and cost of electricity, natural gas, propane, heating oil, water, sewer, and waste management. Energy invoices for FY 2003 (baseline for energy), FY 2007 (baseline for water), FY 2008 (baseline for greenhouse gas), and FY 2009 through the present have been scanned and are ready to be loaded into the database. Energy invoices for FY 2005 and FY 2006 for NIFC and the Boise District Office have also been scanned for verification of savings for the first phase of the ESPC. Database structures have been completed for AFS, AK, AZ, NIFC, and Boise District Office.

Background

With the advent of recent federal mandates (EPA Act 2005, Executive Order 13423, Energy Independence and Security Act of 2007, Executive Order 13514, and the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding), it has become increasingly difficult to demonstrate compliance using the existing energy tracking spreadsheet. Means are also necessary to positively demonstrate savings from recent Energy Savings Performance Contracts (ESPCs), to provide easily accessible information for filling out DOI energy scorecards, to assist in filling out recently developed DOI greenhouse gas emission tracking spreadsheets, and to restore energy consumption information feedback to BLM state, district, and field offices.

Benefits

Implementation of an online EMIS will assist the BLM in tracking energy usage and cost at the individual building or facility level, produce meaningful reports with weather normalized data (using geographically relevant degree-day data), determine official Energy Star scores for facilities that use more than $20 thousand in electricity yearly, and identify opportunities for reducing energy and water consumption, increasing energy efficiency, reducing energy costs, and reducing greenhouse gas emissions.



FY 11

Engineering Programs

Project Lead: Dan Staton, FE

Title: FY 2011 Site Comprehensive Condition Assessments, Moab, UT

Customer: Dan Stenta, Canyon Country District Office

Project Number: N/A

Objective

Perform site Comprehensive Condition Assessments (CCAs) for Canyon Country District Office, UT.

Background

This project began in July 2011. Canyon Country District Office was unable to perform CCAs during FY 2011 owing to long-term sick leave. The original project was for 39 sites and 365 assets.

Benefits

The NOC was able to complete this project in less than 2 months to meet the end of the FY requirements for performing condition assessments. If these CCAs had not been performed, UT would have lost the unused FY 2011 CCA money in the FY 2012 budget.

Outcome

The NOC made two trips to Moab, UT, in July and August 2011 and completed CCAs on 30 sites and 311 assets. The FAMS data entry was completed in October 2011. The last 9 sites were removed from the project because the normal inspector for Canyon Country District Office returned to work and was able to perform the CCAs.

Engineering Programs: ESPC

ESPC Mission

Energy Savings Performance Contract projects will be constructed across the BLM in accordance with the executive directive to implement sustainable design.

ESPC Program Team

OC-670: ARCHITECTURE AND ENGINEERING BRANCH

Ken Morin **CASHE Program Lead**

OC-671: PLANNING, DESIGN & CONSTRUCTION SECTION

Chuck Svoboda **ESPC Program Lead**
Andy Roberts Energy Management

ESPC Projects

Project Title	Project Lead
Installation of 25 Solar Lighting Packages at Recreation Sites Provide Safety for the Public	Svoboda
California Statewide Renewable Energy Projects, Install Photovoltaic at 17 BLM FacilitiesCA053	Svoboda
Montrose FO PV System	Svoboda
Anasazi Heritage Center Roof Replacement with Photovoltaic SystemCO032	Svoboda
Photovoltaic. Install Photovoltaic on Covered Parking at Anasazi Heritage CenterCO033	Svoboda
Salem District Office Photovoltaic System Retrofit (use of solar energy)	Svoboda
Baker Oregon, Ground Source Heat Pump ReplacementOR056	Svoboda
Phase 3 - Energy Savings Performance ContractAK033	Svoboda
Phase 3 - Energy Savings Performance ContractAZ056	Svoboda
Phase 3 - Energy Savings Performance ContractCA054	Svoboda
Phase 3 - Energy Savings Performance ContractCO031	Svoboda
Phase 3 - Energy Savings Performance ContractID061	Svoboda

Project Title	Project Lead
Phase 3 - Energy Savings Performance ContractNM019	Svoboda
Phase 3 - Energy Savings Performance ContractOR057	Svoboda
Bureau-wide Building Commissioning	Svoboda
Bureau-wide Building Commissioning	Svoboda
Bureau-wide Building Commissioning	Svoboda
Metering Infrastructure	Svoboda
FY10 Energy Mgmt & Conservation ProgramWO202	Svoboda
FY10 ESPC AuditsWO203	Svoboda
Rock Springs Field Office Solar Electric and Water HeatWY067	Svoboda
Install Solar Power to the Cody Interagency Dispatch Center to Reduce Energy CostsWY068	Svoboda
Install Solar Power to the Worland Field Office to Reduce Energy CostsWY069	Svoboda
Install Solar Panels at the Pinedale Field Office's Shop Building in Order to Reduce Energy Costs	Svoboda

FY 11

Engineering Programs

Project Leads: Chuck Svoboda, PE
Andy Roberts, PE, LEED AP, and Ken Morin, PE

Title: Energy Savings Performance Contract

Customer: Bureau of Land Management

Project Number: (multiple)

Objective

Implement energy efficiency improvements at BLM-owned facilities to comply with federal energy, water, and renewable energy requirements and mandates.

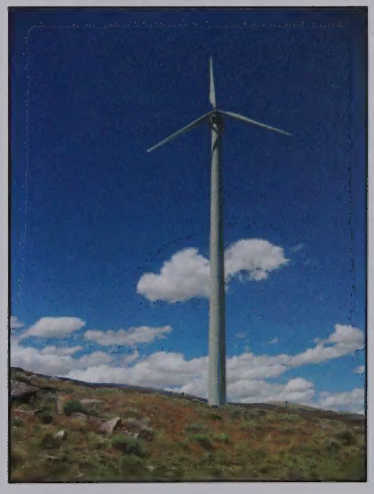
Background

This is the third phase of ESPC work performed by the NOC. The first two phases reduced the BLM's energy usage by approximately 22 percent, with annual savings in FY 2010 of more than $390 thousand from facilities in six BLM states. (The NOC earned a Presidential Award for Leadership in Federal Energy Management in November 2007 from the U.S. Department of Energy for this work.) The third phase provides for the installation of energy conservation measures in the remaining BLM states, as well as installation of renewable sources of energy. Under this ARRA-funded ESPC, the NOC obligated $18,681,036, of which almost $8,000,000 came from BLM states that asked the NOC to manage their ARRA-funded energy conservation related projects. The BLM will accrue approximately $750 thousand in annual savings as a direct result of energy improvements implemented under this contract.

The contract for the third phase of the ESPC was awarded on March 31, 2010. Alignment of subcontractors and development of designs for the various elements of the project mainly occurred during the remainder of FY 2010, with the majority of construction occurring during FY 2011. With a planned modification at the end of the project, project completion is estimated for December 2011.

Benefits

The ESPC will reduce the BLM's energy consumption, energy cost, and greenhouse gas emissions (carbon footprint).



Outcome

Project elements organized by Energy Conserving Measure (ECM) numbers and completed in FY 2011

ECM 1.1 – The existing boilers at the following facilities were replaced with high-efficiency boilers:

- Campbell Tract Facility (CTF, Anchorage, AK) Office and Shops Buildings
- Salem District Office (OR)

ECM 3.1 – The existing heating, ventilating, and air conditioning (HVAC) control systems at the following facilities were replaced with direct digital control (DDC) systems:

- Alaska Fire Service (AFS, Fairbanks, AK) Buildings 1003, 1500, 1513, 1533, 1535, 1537, 1538, 1539, 1540, 1541, and 1544
- Fairbanks District Office (AK)
- Glennallen Field Office (AK) (includes Main Admin Building, Rec Office, Log Office, Seasonal Housing, Blue Modular, Brown Modular, and White Trailer)
- CTF Office, Shops, Warehouse, and Warm ATCO Buildings (AK)
- Campbell Creek Science Center (CCSC, Anchorage, AK)
- Elko District Office (NV) ECM 1
- Shoshone Field Office (ID) (includes remote monitoring of Carey, Kimama, and Rogerson fire stations)
- As part of ECM 3.1, programmable thermostats were installed at 14 sites in California, New Mexico, and Utah. Also as part of ECM 3.1, an advanced metering system for centralized monitoring of energy use and renewable energy production was implemented, with advanced energy meters installed at 48 sites. Four of these sites also include advanced water meters.

ECM 4.1 – The existing mechanical systems at the following facilities were replaced with new, high-efficiency mechanical systems:

- CTF Warehouse (AK) (new gas-fired radiant heaters)
- CTF Warm ATCO Building (AK) (new gas-fired radiant heaters)
- Fairbanks District Office (AK) (variable frequency drives on supply air and relief air fans)
- Surprise Field Office (CA) (new high-efficiency air conditioners)
- Elko District Office (NV) (new high-efficiency chiller, high-efficiency boilers, chilled water pumps, hot water pumps, chilled water coil, supply air variable frequency drive, piping, valves, and appurtenances)

ECM 6.1 – Building envelope improvements were made at the following facilities:

- CTF Warm ATCO Building (AK) (insulation and weather sealing)
- CTF Shops Building (AK) (new windows and weather sealing)

ECM 11.1 – Grid-tied photovoltaic renewable energy generation systems were installed at:

- Virgin River Campground (AZ) -6.2 kW
- Apple Valley Fire Station (CA) -35.9
- CCMA Decon Site (CA) -21.6
- Desert Discovery Center (CA) -21.6
- El Mirage Visitor Center (CA) -47.0
- Ft. Ord Admin Area (CA) -21.6
- Hidden Valley Fire Station (CA) -29.4
- Jawbone Visitor Center (CA) - 16.2
- Olancha Fire Station (CA) - 16.2
- Anasazi Heritage Center (CO) -138.2
- Montrose District Office (CO) -32.3
- Shoshone Field Office (ID) - 49.0
- Salem District Office (OR) - 132.3
- Cody Dispatch Center (WY) - 23.5
- Rock Springs District Office (WY) - 25.0
- Rock Springs Horse Corral (WY) -25.0
- Total Installed kW - 641 kW

ECM 11.2 – Solar domestic water heating systems were installed at the following facilities:

- Grand Junction Air Center (CO)
- Salem District Office (OR)

ECM 11.3 – A 100 kW wind turbine was installed at the Rawlins District Office.

ECM 13.1 – Water conservation measures (new plumbing fixtures and fittings) were installed at the following facilities:

- Surprise Field Office (CA)
- Shoshone Field Office (ID)
- Oregon Trail Center (OR)
- Elko District Office (NV)
- In addition to replacement of plumbing fixtures and fittings at the facilities listed above, a new water- and energy-efficient clotheswasher, dishwasher, and icemaker were installed at the Surprise Field Office, and "ice machine misers" were installed on the ice machines at Surprise, Shoshone, and Elko.

ECM 17.1 – Retro-commissioning of HVAC systems and HVAC controls was performed at the following facilities:

- Surprise Field Office (CA) (reprogrammed programmable thermostats)
- Craig Field Office (CO) (upgraded existing DDC system and retro-commissioned)
- Grand Junction Air Center (CO) (replaced existing DDC system and retro-commissioned)

ECM 19.3 – New energy-efficient television studio monitors and lighting were purchased and delivered to the BLM National Training Center in Phoenix, AZ, to replace older equipment.

CASHE Projects

CASHE Mission

The BLM Compliance Assessment – Safety, Health, and the Environment (CASHE) Program evaluates all BLM facilities and operations to: 1) identify compliance issues, policy needs, and training needs; 2) increase the safety, health, and environmental awareness of all employees; 3) expand ownership for compliance by promoting implementation of collaborative solutions; 4) facilitate budgeting for the implementation of those solutions; and 5) promote the "greening" of the Bureau's facilities and their operation and maintenance.

The benefiting programs include recreation, property, fire, wild horse and burro, noxious weeds, engineering, safety, and hazardous materials management. Specific benefits to the BLM include: 1) improved protection of public and employee health; 2) prevention of environmental damage, or an accident, along with thousands of dollars in savings from associated environmental remediation or workers' compensation costs; 3) enhanced opportunities for training BLM personnel in safety, health, and environmental issues specific to BLM facilities and operations; and 4) improved transfer of facility compliance information and technology to the field.

CASHE Team

OC-670: Architecture and Engineering Services Branch

Ken Morin **CASHE Program Lead**

OC-671: Planning, Design and Construction Section

Dan Akin Civil Engineering

CASHE Projects

Project Title	Project Lead
Award new CASHE contract	Morin
FY 2011 CASHE Status Update	Morin
Prepare FY 2012 CASHE Corrective Action Request	Morin
CASHE audit National Wild Horse & Burro Center	Morin
CASHE audit Fairbanks	Morin
CASHE audit Alaska Fire Service	Morin
CASHE audit Arizona Strip	Morin
CASHE audit Bishop/Eagle Lake	Morin
CASHE audit CASO/Ukiah	Morin
CASHE audit Royal Gorge/San Luis PLC	Morin
CASHE audit COSO	Morin
CASHE audit Challis/Salmon	Morin
CASHE audit Butte/Dillon/Missoula	Morin
CASHE audit Carson City and NVSO	Morin
CASHE audit Battle Mountain/Winnemucca	Morin
CASHE audit National Operations Center	Morin
CASHE audit Coos Bay	Morin
CASHE audit ORSO/Salem	Morin
CASHE audit Spokane	Morin
CASHE audit Cedar City/Richfield	Morin
CASHE audit Salt Lake/UTSO	Morin
CASHE audit Buffalo/Casper/Newcastle/WYSO	Morin
EMS Web-based Intro to EMS Training	Morin
EMIS Contract Support	Morin
Standard Radio Facility Design	Morin
Radio Facility Mapping	Mori
Pesticide Training Salt Lake City	Morin

Project Title	Project Lead
EMS Support Arizona Development	Morin
EMS Support Idaho EMS	Morin
EMS Support Montana Development	Morin
EMS Support NIFC Development	Morin
EMS Support NTC Development	Morin
EMS Support New Mexico	Morin
EMS Nevada third party audit	Morin
EMS Oregon third party audit	Morin
EMS Support Utah Development	Morin
RI CASHE audit Arizona	Morin
RI CASHE audit California	Morin
RI CASHE audit Colorado	Morin
RI CASHE audit Idaho	Morin
RI CASHE audit Montana	Morin
RI CASHE audit New Mexico	Morin
RI CASHE audit Nevada	Morin
RI CASHE audit Oregon	Morin
RI CASHE audit	Morin
RI CASHE audit Utah	Morin
RI CASHE audit Wyoming	Morin
Pesticide Training Lakewood	Morin
Pesticide Training Boise	Morin
Green Purchasing Training Montana	Morin
COR Leasing Training	Morin
Troubleshoot wastewater and water	Morin

CASHE Projects

Project Lead: Ken Morin, PE

Title: Standard Radio Facility Design

Customer: WO

Project Number: CA-WO-11-08

Objective

Address the issues and trends identified in Radio Infrastructure (RI) CASHE audits and provide the field with drawings and specifications for a variety of radio facility configurations that fully comply with nationally recognized standards.

Background

RI CASHE audits began in FY 2007 to address concerns raised by the Department of the Interior's Office of the Inspector General report "Radio Communications Program." The report stated, "[DOI] has an unsafe and unreliable radio communication environment that jeopardizes the health and safety of DOI employees and the public." In addition the Department's Office of the Chief Information Officer issued a directive in December 2009 mandating that all bureaus complete the performance of comprehensive baseline inspections of their radio facilities by December 31, 2014. RI CASHE audits have been completed at approximately two-thirds of the BLM's radio facilities, with the remainder scheduled for completion by the 2014 deadline. The BLM's RI CASHE Program is considered the model for the rest of the Department.

Outcome

The standard design includes a crosswalk document that identifies the applicable issues that must be addressed when the design is being site adapted and that references the appropriate nationally recognized standards that are relevant to each issue. Radio facility design and construction is a specialized field. The crosswalk document is developed as an electronic book intended to provide engineering and radio personnel with a readily searchable reference document that can be used during design reviews and construction inspections.

Benefits

The standard design provides the field with AutoCad drawings and specifications in Microsoft Word that are easily revised to adapt to the specific conditions at each site. The Forest Service was an active participant in the development of the design, and all involved in the Department's Engineering and Radio Program are supportive of it. Its use among all land management agencies is being encouraged. Collocation of radio facilities between bureaus and the Forest Service will be able to occur more readily because the same compliant standard will be used during the construction of new facilities and the renovation of existing ones.